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GUT FEELINGS, THE HOLY SPIRIT, AND A PROCESSED WORLD:
EMBODIED KNOWLEDGE OF BREAST CANCER RISKS
IN AFRICAN-AMERICAN WOMEN

by

JONNIE PEARSON MARKS

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

Thesis Adviser: Dr. Atwood D. Gaines

Department of Anthropology
CASE WESTERN RESERVE UNIVERSITY
(May, 1998)
CASE WESTERN RESERVE UNIVERSITY
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We hereby approve the thesis/dissertation of

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(chair of committee)

(date) April 7, 1998

*We also certify that written approval has been obtained for
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GUT FEELINGS, THE HOLY SPIRIT, AND A PROCESSED WORLD: EMBODIED KNOWLEDGE OF BREAST CANCER RISKS IN AFRICAN-AMERICAN WOMEN

Abstract

by

JONNIE PEARSON MARKS

This dissertation explores the role of culture in African-American women's ideas about breast cancer etiology and personal risk. It elucidates variation in these ideas, the cultural context in which they are embedded, the experiences that contribute to them, and the cultural logics that underlie them.

Methods: A sample of 40 self-identified African-American women living in Cuyahoga County, Ohio was recruited from two education and four age groups. Three semi-structured interviews were conducted with each informant that explored the women's sources of health information and ways of knowing, explanatory models of breast cancer, personal risk perceptions, and scaled responses to over 70 items regarding their relationship to breast cancer in women in general and oneself. Data were analyzed to discern different models of breast cancer, variation by age and education, and the general themes expressed by the women.

Results: Two major etiologic models of breast cancer were found: 1) the "Worldly" model, in which breast cancer was attributed to 12 categories of biologic or societal factors, mechanisms, and conditions, and, 2) the "Divine" model, in which breast cancer was ultimately attributed to God's will, though God exercised this will through these same worldly means. Each model contained
three subgroups: the “Folk,” “Educated Folk,” and “Buppie” groups within the Worldly model, and the “Nothing Causes It,” “Anything Is Possible,” and “God Put It There” groups within the Divine model. These groups varied in the factors, conditions, mechanisms of action, and numbers of items held to be related to breast cancer. The women attributed risk to many more items for women in general than to themselves, and often differentiated themselves from those they considered to be at risk. College-educated women over the age of 50 were least likely to consider themselves at risk.

Conclusions: In this study, African-American women’s perceptions of what is risky for breast cancer and who is at risk rest on culturally constructed, embodied experiences and ideas, including, for example, religious views. Contrary to previous studies, this study found much heterogeneity within this ethnic group. The findings have implications for breast cancer interventions with African-American women and for future research.
DEDICATION

This dissertation is dedicated to my mother,
Thelma Thalgott Pearson Walter
and to the memory of my father,
John Alexander Pearson
ACKNOWLEDGEMENTS

I am deeply grateful for the efforts and support of many others in the completion of this dissertation. First, the chairman and members of my committee have inspired, encouraged, and guided me throughout my academic career. I would like to thank my chairman, Atwood D. Gaines, Ph.D., for his own theoretical insights and encyclopedic knowledge of both anthropological theory and ethnographic detail, his ability to immediately grasp my intentions, make sense of my efforts, and show me the way, and his unfailing kindness, humor, and concern. I am grateful to Thomas J. Csordas, Ph.D., for his inspirational work and penetrating questions and comments that have stimulated my own thought throughout my association with him. I am indebted to Janet W. McGrath, Ph.D., for her overall excellence in teaching, her unstinting rigor, her remarkable ability to add coherence and competence to my work, and her equally remarkable sense of humor. I am also grateful to Gary T. Deimling, Ph.D., the outside member of my committee, for his very useful comments and guidance on my quantitative analyses and for his enthusiastic support of and interest in the qualitative components of this work.

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SECTION I
BREAST CANcer, AFRICAN AMERICAN WOMEN, AND RISK

CHAPTER I
INTRODUCTION TO THE STUDY

Diseases surrounded by controversy over etiology, prevention, and treatment provide a rich research setting for the study of how "knowledge" about a disease is constructed (cf. Hunt, Browner, and Jordan 1990). Breast cancer is such a disease: its etiology is unknown, its prevention uncertain, its treatment controversial (e.g., Solomon 1992; Wilkinson and Kitzinger 1993; Long 1990; Colditz and Gortmaker 1995; Crowe 1996). Within this context of uncertainty and within the larger social, political, and economic environment, women must decide who breast cancer threatens, and what those threatened should do. On what knowledge are primary and secondary prevention decisions based? How does this knowledge vary within and among ethnic groups? How does this knowledge come to be? To add to our understanding of these questions, this study examines an aspect of African-American women's knowledge about breast cancer: what are the dangers, who is at risk, and why.

Specifically, this research explores the ideas of a sample of 40 African-American women of various ages and education levels from Cuyahoga County. The study looks at two senses of "risk perceptions:" 1) What are the study participants' ideas about the specific factors (i.e., agents, conditions, or circumstances) that place women at risk of developing breast cancer? and, 2)
Do the women perceive themselves personally “at risk” of developing this disease? It explores the women’s understandings of breast cancer and its causes, how (and if) these understandings vary in both emic terms and in terms of the etic variables, age and education, and how these understandings are created. Furthermore, the study elucidates the cultural context in which these understandings are embedded, the experiences that contribute to them, and the cultural logics that underlie them. The study is exploratory, descriptive, and interpretive in nature. Since there has been little work on the etiologic ideas about cancer in other groups (see below), the study only briefly compares its findings to those for other groups. Rather, it concentrates on intra-ethnic variation and adds to our understanding of the content of ideas and of the creative process of knowledge production and their variation in this sample of African-American women.

Secondly, though I refer to the “production of knowledge,” I do not mean by this that I am attempting to develop a causal model of such knowledge or that I am trying to identify determinants or predictors of such knowledge. Rather, I am attempting to begin to understand the knowledge held by the participants in the study and the processes through which this knowledge is created by them from the knowledge that is culturally available to them. I do not consider knowledge creation to be a determined process with independent variables whose contribution to the process can be quantified. I consider it rather an essentially unexplainable feature of being human, but it is a feature that is possible to better understand.
Anthropology, Epidemiology, And Risk

Beginning with Douglas (e.g., 1966, 1985, 1992; Douglas and Wildavsky 1982), anthropologists have explored the relationship between risk and culture (e.g., Gifford 1986; Frankenberg 1993, 1994; Kaufert and O’Neil 1993; Gaines 1993; Hahn 1995). For example, anthropologists have studied the production of risk knowledge by epidemiologists and the cultural construction of this knowledge.

Epidemiology tries to determine the causes of “health-related events” (Hahn 1995:102). Epidemiologists analyze the distribution of disease in a population and explore the reasons for that distribution. They identify risk factors and at risk populations through largely quantitative methods. They determine if exposure to any risk factor results in an increased probability of the disease in question and quantify this increased risk, controlling for other variables that may influence the relationship between the risk factor and the disease outcome.

Backett, Davies, and Petros-Barvazian (1984) classify risk in three ways, each having different functions:

1) Absolute risk associated with each risk factor, which is the risk to the whole population being considered and enables evaluations of interventions. It is used in alerting the health care system as a whole, as well as families and communities within it.

2) Relative risk: the ratio of incidence in those with a risk factor to those without. This is used for referral, the setting of individual priorities and for the development of policy related to them.
3) Attributable risk, which concerns:

a) the frequency of the unwanted outcome when the risk factor is present,

b) the frequency of the outcome when the risk factor is absent, and,

c) the frequency of occurrence of the risk factor in the community. Attributable risk is important for setting social priorities and for the development of policy related to them (1984:16). In other words, if the risk factor for an unwanted outcome is widely present in the community and it is highly likely that the unwanted outcome will occur if the risk factor is present and unlikely that it will occur when the risk factor is not present, then policies are warranted to prevent or control the presence of the risk factor.

The authors continue:

Because most people are concerned more with the threat of illness than with health, the notion of risk has become part of our thinking about the prevention of disease -- the changes of health being thought of mainly as low risk of illness. We do not speak of our 'vulnerability to health' and epidemiologists rarely study the characteristics of the healthy . . . (Ibid.).

Thus, by identifying risk factors and quantifying the degree of risk these factors pose, epidemiologists hope to prevent or intervene in diseases.

According to Frankenberg (1993), narratives such as Backett, Davies, and Petros-Barvazian's reveal an objective of epidemiology: to identify people who are "prepatients," those individuals who are likely at some point to require care for the disease in question. This risk approach to prevention reflects the cultural context of Biomedicine within which epidemiology is embedded in which focus is on disease, rather than health, and in which disease is often understood as an individual rather than a social phenomenon.
Consequently, the risk approach that has emerged in epidemiology often emphasizes the lifestyle behaviors of individuals. Douglas and Wildavsky (1982) examine the relationship between these individual behaviors/risks and moral principles. Of all the possible risks in the world, "a certain selection of troubles is made particularly sensitive to a particular set of moral faults" (1982:38). By concentrating on morally-informed individual lifestyle behaviors, and thus locating the of disease within individuals, Young (1982) charges that epidemiology desocializes diseases and the individuals diseases afflict. Frankenberg (1994) continues this argument: "The socially and culturally situated and self-situating person excluded already from technological medicine is now being abandoned by curative medicine and perhaps also by preventive medicine" (1994:1331).

Frankenberg maintains that an anthropological perspective is a necessary complement to epidemiology as scientists try to answer questions about the causes of health-related events, prevent disease, and promote health. For example, Hahn (1995) writes that epidemiological risk assessments miss "two crucial facets of phenomena: the bigger picture -- the broader context that connects phenomena to one another -- and the smaller, detailed picture -- the inner workings of phenomena -- their cultural meaning" (1995:122). Anthropologists are trained to investigate these facets, and thus anthropology provides both insights into the broader social context within which risk is embedded and the details of the meanings and the experience of risk. To this end, anthropologists have studied the relationship between risk and culture by
examining people's knowledge and experience of risk and danger in everyday life (e.g., Gifford 1986, Kaufert and O'Neil 1993), the behaviors that result from this everyday knowledge and experience (e.g., Gregg and Curry 1994), and the cultural shaping of this experience, knowledge, and practice (e.g., Douglas and Wildavsky 1982).

In sum, epidemiologists create (contested) breast cancer risk knowledge that is widely disseminated throughout American society (see below); women create understandings and experience that sometimes stand in juxtaposition to this knowledge, and make decisions that may impact their health and lives. We know little about how African-American women experience the risk of developing breast cancer; we know little about their beliefs regarding breast cancer and its risks and how these beliefs vary among Black woman. We know little about what social tensions, concerns, and cultural themes these women are expressing when they talk about breast cancer and its risks. We do not know how these women assess whether or not their own bodies are at risk of developing this disease; and we do not yet understand the role of culture in the construction of this knowledge.

The Cultural Construction of Ethnomedical Knowledge

I approached my research questions from a certain theoretical stance. First, I define culture as a system of shared meanings embodied in symbols (Geertz 1973). "Breast cancer," "risk," and the experience of knowing itself are each examples of symbols that condense many meanings. They are, in Geertz' terms "social expressions" that are, "on their surface enigmatic" (1973:5). My
task in this dissertation is to unpack these enigmas as if they were suitcases, describe the "articles" (that is, the ideas) within, and shed some light on why they were packed as they were.

Second, I understand perceptions of risks to health to be dynamic creations informed by cultural, sociopolitical, and historical forces as they operate in local contexts (e.g., Young 1981; Wright and Treacher 1982; Leslie and Young 1992; Douglas and Wildavsky 1982; Gaines 1992b). Gaines (1992a: 6-7) outlines five assumptions of a constructivist perspective on ethnomedical knowledge: 1) All ethnomedical knowledge, folk, popular, or professional, is problematic, is culturally constructed; 2) Medical systems [and medical phenomena such as breast cancer] are "never-finished, historically created cultural products-under-construction" (1992a: 6); 3) Ethnomedical systems [and their knowledges] are both components of and reflective of their respective larger cultures; 4) Medical systems and realities need to be understood in "experience-near" terms, that is, they are meaningful only as humans experience and interpret them within their local contexts. [Each local context is shaped by a particular history and particular circumstances]; and 5) "Forms of social interactions [e.g., talk or other communicative media) construct, transform and maintain clinical and cultural realities" (1992a:7).

Additionally, Csordas (e.g., 1990; 1993; 1994) articulates what I understand to be a complementary orientation to the study of the cultural construction of ethnomedical knowledge: the body as "the existential ground of culture" (1990). One feature of material existence is that each human exists in a
body. Csordas' conceptualization of embodiment implies that this body is "simultaneously a physical and a symbolic artifact" (Strathern 1996:2). The body and all its structures and capacities exist as a physical reality, operated on by physical phenomena (such as breast cancer). But culturally constructed ideas about the body, including ideas that shape its structures and capacities, turn the body into a "vessel of meaning." Furthermore, as articulated by Csordas, embodiment implies that the body is not only the object, but the subject of culture as well. In my view, given a substrate of material reality, culture, in conjunction with political and economic influences, constructs the body's structures, form, functions, capacities, and limitations. We respond with these bodies in constructed ways to available stimuli through emotions, perceptions, and sensations that are also constructed. These bodily experiences, in turn, command our attention; we objectify and interpret them, and, in so doing, actively create culture — meaning — in a perpetual dialectic.

As the phrase, "actively create" implies, this is not to say that people are automatons. In my view, culture, politics, and economics, though powerful, delimit only the boundaries of individual knowledge, experience and action. Within those boundaries, individuals choose from and combine a virtually infinite number of possibilities, to, in turn, actively create their personal knowledge, experience, and meanings. Furthermore, those boundaries are constantly shifting, as individuals choose or are exposed to different subcultures and cultures and as political and economic conditions change.
Employing a perspective of embodiment in the search for the work of culture means, to me, that evidence is to be found not in disembodied “minds,” but in the individual’s experience and interpretation of the world, mind and body as one. Thus, I agree with Gaines (1995) that ethnomedical knowledge, a work of culture, is “based upon embodied [that is, bodily] experience interpreted in light of ethnomedical theories of illness” (1995:287). Adopting a perspective of embodiment suggests, for example, that I ask my informants about how the body works, about its structures, and about sensations they experience when they know something or perceive that something is dangerous. Hence, this study investigated not only the content of the informants’ culturally-constructed knowledge, but also how embodied experiences themselves grounded the knowledge the women created.

Exploring the cultural construction of perceived risk of developing breast cancer is both empirically and theoretically important. According to many scholars (e.g., Weinstein 1988, 1993a, 1993b; Johnson and Covello 1987; Slovic 1987; Fischhoff 1975; Prohaska, et al.1990; Fischhoff, Bostrom, and Quadrel 1993) perceived risk of developing a disease is an important predictor in models of health behavior. Researchers have increasingly called for greater understanding of the role of culture in the development of risk perceptions in different ethnic groups (e.g., Vaughan and Nordenstam 1991). The present research responds to this call.
Outline of the Following Chapters

The next two chapters in Section I discuss the background and significance of the study and its methodology. Chapter IV, the final chapter in this section, briefly outlines the historical Cuyahoga County context in which African-Americans have lived. It then details the knowledge of three sectors of ethnomedical systems identified by Kleinman (1980), the professional, the popular, and the folk, that informants draw upon in constructing their own knowledge of breast cancer and its risks. It also outlines previous anthropological work on Black women's breast cancer knowledge, as well as cancer knowledge of other groups.

Section II, which includes Chapters V- XIV, presents the results of the study. Chapter V presents the results of the analyses of the women's sources of health information, the sources they trust, and their ways of knowing by age and education groups. The next few chapters in Section II present the results of analyses of the women's knowledge of breast cancer and its etiology and their perceptions of their own personal vulnerability. Chapter VI outlines the organization of the women's ideas into two major models, each with three subgroups within it, according to their causal thinking about breast cancer. Before presenting each of these six etiologic model groups, Chapter VII discusses the variation in these ideas according to the variables, age and education. Chapters VIII - XV then present the ideas of the members of each of
the six subgroups, including profiles of members of each of the two major groups.

Finally, in Section III, Chapter XVI discusses the cultural construction of knowledge about breast cancer risks, the process of knowledge creation, and Chapter XVII outlines the implications of this research and directions for future research.
CHAPTER II

BACKGROUND, SIGNIFICANCE, AND RATIONALE

In 1997, some 180,200 new cases of breast cancer were predicted in the U.S. and 43,900 U.S. deaths were expected, making breast cancer the second leading cause of cancer deaths among women and the leading overall cause of deaths among women younger than age 50 (National Center for Health Statistics 1997). The incidence rate in Cuyahoga County (199.0 per 100,000 women) is higher than 16 other counties in Ohio and lower than three counties (Ohio Department of Health 1992). Incidence rates of invasive breast cancer increased during 1973-1987 and stabilized during 1988-1992 (ibid.). Current estimates are that, of those U.S. women who live until their 80's, nearly one in eight or nine (the figure is disputed) will eventually develop breast cancer (e.g., DeBor 1993; McCool 1994).

According to some researchers (e.g., Liff, et al. 1991; Davis, Dinse, and Hoel 1993), the increase in incidence from 1973-1987 cannot be completely explained by the aging population or by better diagnosis, though others dispute this contention, for example, Doll (1990), who attributes increases in incidence to better diagnosis. Additionally, there is controversy over which cancers to include in analyses, the accuracy and comparability of data, and its interpretation.

Despite intensive efforts, the percentage of women who die from the disease in the general U.S. population did not change over 60 years (Lee-Feldstein, Anton-Culver, and Feldstein 1994; Davis, Dinse, and Hoel 1993; 12

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Crowe 1996), though there is recent evidence of a rapid decline in mortality among Euro-American women only (Chu, et al. 1996). Chu and colleagues attribute this decline to a combination of the increased use of mammography and systemic adjuvant chemotherapy.

Henderson, et al. (1996) list age, gender, family history, early menarche, late menopause, obesity (for postmenopausal women), and hormone replacement therapy as established risk factors. Protective factors include an "early" full-term pregnancy, lactation, and physical activity. Possible risk factors for which there is no conclusive evidence include diet, particularly fat consumption, cigarettes, alcohol, and certain types of benign breast disease. The mechanism through which all are thought to operate is effects on exposure to estrogen and, possibly, progesterone in a woman's lifetime. Age, gender, and family history are held to be the most important risk factors in Crowe's review (1996). Colditz and Gortmaker (1995), however, summarize the state of knowledge of breast cancer etiologic and risk factors: "In sum, deficiencies in the knowledge base concerning fundamental biological processes and the epidemiology of modifiable risks for breast cancer highlight the need for focused research in these areas" (1995:636).

Because little is known about what to do to prevent the development of breast cancer, and there is nothing one can do about the primary risk factors, age, gender, and family history, biomedical professionals promote secondary preventive behaviors such as obtaining mammograms and clinical breast examinations and performing breast self-examinations (BSE), because there is
evidence that screening reduces mortality (e.g., Crowe 1996). The degree to which women participate in these efforts, however, is influenced by women's experience in ways that are not completely understood.

Research has demonstrated some effects of age and education on the performance of these screening behaviors and on knowledge of breast cancer risks in general (e.g., Calle, et al. 1993). Calle and colleagues' review, for example, found that though the American Cancer Society and the National Cancer Institute both recommend annual clinical breast examination and mammography for women over 50 years of age, the frequency of performance of these decreases with age. Additionally, mammography use is less for women who are from rural or inner-city areas, who are poor, who are nonwhite, and who have lower education. These investigators noted that lack of perceived need (i.e., low perceived vulnerability) and lack of physician recommendation are the most significant predictors of underutilization of mammography.

Sensiba and Stewart (1995) found no differences among age and education groups in the performance of breast self-examination but the groups differed in their perceptions of barriers to practice. According to them, older women may need education about BSE's value, younger women may need their confidence in their ability to perform BSE bolstered, less educated women may need information to reduce fear of breast cancer, and more highly educated women may need help in developing a reminder method.

Regarding knowledge of breast cancer risk factors and personal risk perceptions, Dolan, Lee, and McDermott (1997) found that older women knew
less about breast cancer than younger women, but few women of any age were aware that incidence increases with age. Additionally, after assessing women's individual risks using the Gail model (e.g., Daly, et al. 1996) and then asking these women about their own assessments of their risk, Dolan, Lee, and McDermott concluded that among all women, 26% underestimated their risk of developing breast cancer in the next ten years, 32% perceived their risk correctly, and 42% overestimated their risk.

**BREAST CANCER IN AFRICAN-AMERICAN WOMEN**

**Incidence and Mortality**

Most epidemiological studies concerning breast cancer and Black women contrast incidence and mortality in this group with that of Euro-American women. The present study cites such statistics due to their availability and because the study sample is composed of individuals who identify themselves as African-American women. The study is premised, however, on the recognition of diversity among African-Americans (and women) and on the notion that so-called racial (and gender) categories are cultural, rather than biological, designations.

Gaines (e.g., 1995) maintains that research (including incidence and mortality statistics) that separates people into racial categories of Blacks and whites derives from culturally constructed ideas that are embedded in U.S. biomedicine about immutable biological characteristics attributed to various racial groups. According to Gaines (1995), these ideas derive from English and German ethnobiological conceptions of race and arbitrary choices of physical
characteristics by which an individual’s race is determined, conceptions not
shared by others across space and time.

The erroneous views of race found in the United States encode
several distinct ideas: 1) a fixed number of distinct biological
populations, or races, exist in nature; 2) races have distinctive
physical, mental, and/or behavioral characteristics; 3) racial
characteristics (physical and behavioral) are naturally reproduced
over time; and 4) specific group characteristics — physical, mental,
and often moral — are hierarchically ranked, that is, some groups
are superior to others (1995: 2194).

Gaines details how anthropologists have debunked these ideas. For
example, Franz Boas’ findings flatly contradicted the conceptions of races as
“stable, unchanging, and distinct physical types” (1995: 2191). Boas also argued
against causal relationships between race and behavior. Subsequent research
has only confirmed these findings: shared physical characteristics reflect “local
biologies” and are themselves highly mutable through the course of one’s lifetime
and in children produced. “In reality, thousands of biologically distinct human
groups exist” (1995:2195).

Furthermore, the use of racial groups as the basis for choosing research
samples and analyzing data in all U.S. biomedical research including
epidemiological risk assessments accepts and perpetuates these assumptions.
Gaines maintains that,

given the demonstrably negative social, psychological, and health
results of the perpetuation of the invidious distinctions
represented by racial (and gender) identities and the antipathy
generated by their stereotypes, the continued use of racial
identities in biomedical work may be said to represent a serious
ethical, as well as a biomedical, research problem (1995:2189).
A pernicious effect of this practice is to reinforce notions of biological, behavioral, and experiential homogeneity within so-called racial groups. This practice supports biological reductionism that neglects sociocultural factors (see also Osborne and Feit 1992 and Bagley 1995), as well as contributing to racist stereotypes.

While recognizing the problematic nature of these data, they indicate the threat that breast cancer poses to Black women. The National Center for Health Statistics (1990; 1997) reported breast cancer's increasing incidence in African-American women. The age-adjusted incidence for 1973 was 67.8 per 100,000, in 1987, the rate was 90.9; and in 1994, 100.5 per 100,000. This increase is usually attributed either to better reporting or to improvement in women's socioeconomic status, since breast cancer is associated with higher socioeconomic status. There is an interesting crossover observed in national incidence data: African-American women under the age of 40 have higher incidence rates than Euro-American women under age 40, but African-American women over the age of 40 have lower incidence rates than Euro-American women over age 40 (Long 1990; Krieger 1989, 1990). (The age of 40 as the point where the crossover occurs has now risen to age 45, according to Trock 1996.)

In addition to increasing incidence in Black women, breast cancer is the leading cause of cancer mortality overall in Black women (e.g., Boring, Squires, and Heath 1992; McBarnette 1996). Furthermore, epidemiological studies have shown that African-Americans suffer excess mortality rates in comparison to
whites for many cancers (and other diseases), including breast cancer (e.g., Mansfield 1992; Bal 1992; Long 1990, McBarnette 1996; Hummer 1996). The National Center for Health Statistics (1997) reports that the age-adjusted death rate for breast cancer in 1995 for white women was 20.5 per 100,000, whereas the rate for Black women was 27.5. While mortality rates from breast cancer decreased 10% for Euro-American women, mortality in Black women has remained stable (e.g., Chevarley and White 1997). Studies have shown that disparities in cancer incidence, mortality, and survival are increasing between racial groups (Baquet, et al. 1991; Moormeier 1996). Finally, breast cancer survival rates are lower for African-American women than white women in all disease stages, and the gap has increased over time. From 1974-1976 to 1986-1993, the five-year survival rate for U.S. Euro-American women rose from 75.1 to 85.5, while the five-year survival rate for U.S. Black women rose from 62.9 to 70.0 in the same time period (National Center for Health Statistics 1997).

Long (1990:1) lists five possible explanations for the excess mortality in African-American women: 1) the relatively low socioeconomic status of Black woman that has negative effects on health in general; 2) the advanced stage of disease at diagnosis; 3) diagnostic and treatment delays; 4) biological and constitutional characteristics; and 5) treatment differences. (Again, Long's discussion concerns Black women in general; she does not distinguish among Black women of varying sociocultural backgrounds or cultural orientations (for example, Caribbean or rural Southern) though disaggregating these data could reveal differences in mortality rates for different groups of Black women.)
According to the explanations outlined by Long, Black women are more likely than other women to have poor diets, unhealthy lifestyle behaviors such as lack of exercise, and exposures to environmental carcinogens. Moreover, African-American women are more often diagnosed with breast cancer at a later stage of the disease when survival chances are reduced. According to Long, these delays are due to barriers to utilization of health services such as mammography screening and clinical breast exams including client barriers, provider barriers, and health system barriers. Moormeier (1996) sums up the results of investigations into the poorer survival rates by stating,

> It appears that the worse prognosis of Black women with breast cancer cannot be explained by any single factor but results from a complex interaction of many issues, including tumor stage, tumor biology, comorbid conditions, and socioeconomic variables (1996: 903).

Mathews, Lannin, and Mitchell (1994) found in their study of low-income African-American women breast cancer patients in North Carolina that those with a grade school or less education level were significantly more likely to be diagnosed at a later stage than those who completed high school.

Coates, et al. (1992) asserted that small differences between racial groups in the time elapsed from symptom recognition to medical consultation could not account for survival differences between Blacks and whites. Wells and Horm (1992) found that Black women were diagnosed with breast cancer at later stages than white women, but that this disadvantage disappeared as education and income levels rose. Additionally, Zaloznik (1995) found that when access to care is equitable, African-American women are not diagnosed at later stages.
than Euro-American women. None of these researchers examined the role of occupation (cf. Rubin, Burnett, and Halperin 1993) or other sociocultural differences besides education and income within their study populations.

Biological and constitutional factors cited by Long that may account for the decreased survival in Black women include the histology of breast tumors, age, estrogen receptor and progesterone receptor status, immune parameters, and breast tumor biology. Long states that premenopausal Black women are prone to more aggressive tumors than white women. Also, one study she reviewed showed less competent immune systems in African-American women than in white women (1990:6). The social factors (such as effects of diet or stress on immune function) that impinge on these biological factors were not discussed in Long's review. And, in contrast to the studies reviewed by Long, Weiss, et al. (1995) found that differences in survival among ethnic groups (Euro-Americans, African-Americans, and Latinos) were not due to biologic differences in breast cancer among these groups.

Finally, Long cites evidence that Black and white women receive different standards of care although a few studies found no differences. In the studies she reviewed that found treatment differences, Black women were less likely than white women to receive liver scans, progesterone receptor assays, post-mastectomy rehabilitation, or adjuvant chemotherapy.

In summary, though there is little clarity for any woman about breast cancer prevention or treatment, it is clear that there are differences between Black women and white women's mortality and survival rates for breast cancer.
These differences have not been sufficiently explained so that interventions can be designed to eliminate or reduce the discrepancies. More research is needed, and many studies call for attention to cultural factors that may add to our understanding of these issues.

**Diversity among African-American Women**

The decision to compare African-American women of different age and education groups reflects recent scholarship that calls for attention to this diversity (e.g., Martin 1987; Spelman 1988; McAdoo 1993). The majority of studies on Black women and breast cancer-related behaviors deal with poorer, less educated women (e.g., Michielutte and Diseker 1982; Mandelblatt, et al. 1993; Anderson, et al. 1992; Coates, et al. 1992; Chen, et al.1990; Royak-Schaler, et al. 1995). Few studies, however, include better-educated, wealthier Black women. This dearth of attention reflects a popular stereotype of Black women as lower class, a stereotype that I found operant among both Euro-Americans and African-Americans. Scholars have begun to pay more attention to middle and upper-middle class African-Americans (e.g., Landry 1987; Cose 1993; McAdoo 1992), but there is still little research on Black college-educated women except for studies related to employment (e.g., Sokoloff 1992; Higginbotham 1994). There is no research comparing African-American women's ethnomedical understandings regarding breast cancer and the cultural bases of these understandings within age and education groups.
THEORETICAL ORIENTATION TO THE STUDY OF RISK PERCEPTIONS

The Significance of Risk Perceptions

As we have seen, scientists have identified several factors that place people at risk of developing breast cancer at the population level. As noted above, population-level risk assessments, however, do not tell us anything about any individual's risk of developing a disease (e.g., Gifford 1986; Gaines 1993; Frankenberg 1994). Frankenberg, for example, argues that health promotion messages that rely on epidemiological risk assessments may be disregarded by people who assess themselves as not at risk according to their own understandings of probabilistic information. Lay perceptions are based upon different epistemologies, conceptual models, and reasoning styles, and they express meanings of illness that may differ from biomedical meanings referring only to the biological state of disease (e.g., Slovic 1987; Fischhoff, Bostrom and Quadrel 1993; Freudenberg 1988; Patterson 1993; Davison, Smith, and Frankel 1991).

In the case of breast cancer, biomedical professionals assert that all women are at risk (though additional factors may increase risk) since they have not yet identified the cause(s) or all the risk factors associated with the disease, and because most women who get the disease have no known risk factors (e.g., Crowe 1996). Studies have also shown that, by far, knowledge of breast cancer risk factors held by the majority of women in the U.S. differs from biomedically-identified factors (e.g., Royak-Schaler 1995; Wardlow and Curry 1996; Daly et al. 1996).
There is a growing literature on the relationship between individuals' risk perceptions and their health behavior (Blalock, et al. 1990). Models of health behavior such as the Health Belief Model (Rosenstock 1974; Becker and Janz 1987; Janz and Becker 1984), and the theory of reasoned action (Fishbein and Ajzen1975) include perceptions of personal vulnerability to a disease as a variable that affects the performance or non-performance of health-related behaviors. Studies on the usefulness of such models in predicting behavior (particularly the Health Belief Model) have shown mixed results.

For example, studies specific to breast cancer, usually concerning screening behaviors, have exhibited small or conflicting effects of perceived vulnerability and behaviors. Gray (1990) reviewed studies that investigated the effects of perceived vulnerability on the frequency of performance of breast self-examination (BSE) within the Health Belief Model framework. Several of these studies found significant positive relationships between perceived susceptibility and BSE although, again, perceived susceptibility did not account for much variance. In addition, barriers to BSE such as lack of knowledge, being too busy, or not wanting to think about breast cancer conditioned the relationships. In Gray's sample of rural women, perceived susceptibility and BSE were positively related but the relationship was not statistically significant.
Manfredi, et al.'s (1977) study of BSE in inner-city, poor Black women supported the importance of perceived susceptibility in predicting knowledge of BSE. In her sample, however, those with high fear of cancer were more likely to be unaware of BSE. Vernon, Laville, and Jackson (1990) concluded that though perceived vulnerability to breast cancer was associated with the practice of BSE, it was less important than the belief in BSE's value and belief in one's own ability to detect lumps in predicting performance. Other researchers have found that fear of cancer may foster "denial" of risk and thus inhibit preventive behaviors (e.g., Leventhal and Watts 1966; Berman and Wandersman 1990). Royak-Schaler, et al. (1995) included the effects of age in their analysis of the screening behaviors of African-American women, and found that risk perception was related to screening practices for women under 40 and age 40-49, but not for older women. McCool (1994) found that older women (of all ethnicities) exhibited more denial or fear of findings and embarrassment about screening. Harris, et al. (1990) found that younger women were more worried about their own risk of developing breast cancer than older women, which was associated with the "overuse" of mammography, while older women who were more at risk underutilized the technology. Mah and Bryant (1992) concurred, finding that older women were less likely to think they were vulnerable to breast cancer than younger women and, as a result, were less likely to think positively about screening.

Clearly, as the evidence for how risk perceptions impact on health behavior is confusing, the important question becomes focused on how risk
perceptions are formed. As Paul Slovic (1987), a major researcher in risk perception, maintains, it is necessary to understand how people evaluate risk information in conditions of uncertainty to begin to understand their behavior.

**The Determinants of Risk Perceptions**

Many scholars from several disciplines (most notably, psychology) have studied the determinants of and the processes involved in people's understandings of threats to their own bodies and the personal salience and experience of risk factors. Investigators have identified the following determinants of people's risk perceptions: characteristics of the specific risk situation (e.g., Hance, Chess, and Sandman 1988); media coverage and other available information and the credibility of the sources (e.g., Slovic 1987; Cvetkovich and Earle 1992); heuristics that simplify the decision-making process (e.g., Tversky and Kahneman 1974); personality factors (e.g., Gochman 1977; Slovic 1987); prior experience with the threat (e.g., Gochman 1977; Vaughan 1993b); social support and social comparisons (e.g., Perloff and Fetzer 1986; Weinstein 1993b); established health-related behaviors (McCoy 1992); optimistic biases (e.g., Weinstein 1988; Boehm, et al. 1992); present state of health (e.g., Kulik and Mahler 1987); emotions (e.g., Prohaska, et al. 1990; Redelmeier, Rozin, and Kahnemann 1993); competing activities and concerns and cues to action (Easterling and Leventhal 1989); age (e.g., Easterling and Leventhal 1989); moral values (Prohaska, et al. 1990); political ideologies and gender (e.g., Brown, Williams, and Lees-Haley 1993); hindsight bias (e.g., Fischhoff 1975);
worldviews (e.g., Dake 1992); self-knowledge, verification by significant others, and legitimization by health care providers (Patterson 1993).

Leventhal, Diefenbach, and Leventhal (1992) summarize the many determinants identified by these researchers. They contend that an individual's risk perceptions are formed through a complex interpretive process influenced by illness representations, emotions, personality styles, social networks, values, and personal experiences. When confronted with a possible danger, people bring all of the above to bear on their assessment of the risk. This study maintains that culture is at work in this process.

The Cultural Construction of Risk Perceptions

As noted above, the work of Douglas (e.g., 1985) and Douglas and Wildavsky (1982) alerted researchers to the importance of cultural factors in the construction of personal risk perceptions (e.g., Johnson and Covello 1987; Nelkin 1989; Lupton 1994). According to Douglas and Wildavsky, culturally constructed beliefs, values, norms, ideals, and worldviews teach people what to be afraid of, how dangers threaten well-being, and what to do about these dangers. In reviewing their work, Pliskin (1997) notes, “The perception of personal physical risk varies, attesting to what Douglas and Wildavsky call the ‘controversies over risk.’ Douglas and Wildavsky write that the arguments about risk, “show the inappropriateness of dividing the problem between objectively calculated physical risks and subjectively biased individual perceptions . . . Acceptable risk is a matter of judgment and nowadays judgments differ” (Douglas and Wildavsky 1982: 194).
Some psychological research is beginning to include the role of culture in risk perceptions. According to Fischhoff, Bostrom, and Quadrel (1993), cross-cultural comparisons of risk perceptions have revealed that psychological thought processes are the same across cultures, but specific interpretations of risks are different. Davison, Frankel, and Davey Smith (1992) discuss "lay epidemiology" and how cultural notions of fate, luck, destiny, randomness, and chaos affected people's assessments of risks and the potential benefits of prophylactic actions. Fontaine and Smith (1995) found that while both American and British adults were optimistically biased in their perceived vulnerability to developing cancer, British were more so. The authors attributed these differences to ideas about personal abilities and responsibilities to control one's health status.

Vaughan and Nordenstam (1991), in their research on perceived risks of developing cancer from environmental pollution, write that researchers should pay more attention to diversity in lay perceptions of risk in addition to differences between professional and lay perceptions. According to them, ethnicity is one factor that can account for systematic differences in risk perceptions among different groups of people. They posit three mechanisms through which ethnicity can impact risk perceptions: a) differences in levels of exposure to risks or prior experience, b) dissimilarities in general perspectives on risk and the environment, and, c) nonequivalent values on those qualitative dimensions that likely influence lay assessments of environmental risk (1991: 51).
Vaughan and Nordenstam suggest that African-Americans may have less sense of control and more fatalism over environmental hazards and over the course and severity of cancer. They also may have less trust of institutions such as Biomedicine and may discount biomedical findings. They, however, do not address different meanings of concepts such as "fatalism" and "less sense of control," nor do they address diversity within this ethnic group.

In anthropology, Gaines (1993) notes that lay people are "natural empiricists" since they base their risk assessments on their own experiences and those of others in their social network, rather than on abstract statistical probabilities that are meaningless for any one individual.

Gifford (1986) has studied both the construction of epidemiological risk knowledge and the experience of women with benign breast disease. She states that the concept of risk is central to epidemiological and clinical understandings about the etiology and prevention of chronic diseases such as cancer. The centrality of this concept results in what Gifford calls the "medicalization of risk" (1986:215), which has serious implications for clinical practice and women's relationships with their bodies.

Gifford notes that ambiguous, uncertain risk is interpreted differently by epidemiologists, clinicians, and individual women with benign breast lumps. To an epidemiologist, risk is depersonalized, outside of any one individual. To the clinician who must care for individual patients, risk becomes embodied in the lump; both the woman with the lump and the clinician her/himself are at risk of wrongly guessing whether the woman will develop someday breast cancer.
Often, the lump or entire breasts are removed to get rid of the risk. Risk for the lay woman is a "state of being. . . a state somewhere between health and illness," (1986: 231) and is impossible to quantify. Overwhelmingly, Gifford found that risk is internalized and felt by women; it is a subjective, not a mathematical experience. Being at risk becomes a disease itself. Risk knowledge conveys a lack of control over one's status, yet also may force women to decide to remove the organ that may or may not someday be lethally diseased.

These studies illustrate the cultural bases of lay risk perceptions. To summarize, Angel and Thoits (1987:465) state, "... culture constrains the perceptual, explanatory, and behavioral options that individuals have at their disposal for understanding and responding to illness." This study examines a particular situation and specifies the particulars of what the study participants know, how they know it, and what culture has to do with it.

SUMMARY

Exploring the cultural construction of perceived risk of developing breast cancer is both empirically and theoretically important. According to many scholars, (e.g., Fischhoff 1975; Johnson and Covello 1987; Slovic 1987; Weinstein 1988, 1993a, 1993b; Prohaska et al. 1990; Fischhoff, Bostrom, and Quadrel 1993), perceived risk of developing a disease is an important predictor in models of health behavior. Researchers have increasingly called for greater understanding of the role of culture in the development of risk perceptions in different ethnic groups (e.g., Vaughan and Nordenstam 1991).
Furthermore, the biomedically defined disease, breast cancer, is a significant threat to African-American women, and prevention efforts may reduce its impact. Although we know that perceived vulnerability impacts preventive behavior (albeit in complicated ways), we do not know much about African-American women's knowledge of the risks of breast cancer and how they assess whether they are at risk of developing this disease. This study addresses this gap by adding an important anthropological perspective on the cultural construction of ethnomedical knowledge and knowledge regarding one's own personal risk to the growing risk perception literature.
CHAPTER III
METHODOLOGY

SAMPLE SELECTION AND RECRUITMENT OF PARTICIPANTS

Since a primary goal of the study was to investigate heterogeneity within African-American women, I selected my sample to tap various segments of African-American women in Cuyahoga County. My first inclusion criterion was to select only women who had never been diagnosed with breast cancer. Then, I chose two commonly used indices of variation, age and education, and selected a sample of 40 African-American women who represented various categories of these two variables. (The sample size of 40 reflects a balance between selecting enough subjects to capture the range of variation in ideas and yet not so many that intensive qualitative research was not possible.)

I selected twenty women who had earned at least a bachelor’s degree and twenty women who had not earned a bachelor’s degree to investigate the differences in ideas between these two education levels. Five women from each education category were recruited from each of four age groups: 1) under the age of 40; 2) age 40-49; 3) age 50-59; and 4) age 60 and over to include women across the adult age spectrum. All participants in the study lived in the eastern portion of Cuyahoga County, Ohio (i.e., east of the Cuyahoga River).

The participants were recruited using a combination of cluster and snowball sampling methods. I posted signs in various settings in Cuyahoga County, (e.g., schools and office buildings) to attract women from various, solicited volunteers in newsletters and at community and church meetings, and
asked friends and acquaintances to suggest participants. Regarding the "cluster" aspect of my sampling strategy, I tried to recruit participants from different areas of the east side of the county, ranging from the inner-city to outer-ring suburban locations. Regarding the "snowball" aspect, most of the women who participated in the study then suggested other participants who fit the age and education requirements of the study design. In each recruitment activity, I explained that I was interested in African-American participants from certain educational backgrounds and age groups. Each woman who elected to participate identified herself as belonging to these categories. Recruitment was on-going throughout the study period until the sample requirements were filled.

I contacted (or was contacted by) each potential participant by telephone. I explained that I was interested in finding out more about African-American women's thinking about breast cancer and that I would like to conduct three interviews with them, each about two hours in length, in the setting of their choice. Upon their agreement, we arranged a convenient time and place to meet.

DATA COLLECTION

Semi-structured interviews

So as not to overwhelm the participants in one interview, I developed three semi-structured questionnaires to use in three separate interviews. They included questions about the participants' personal histories and sources of health information, explanatory models (Kleinman 1980) of breast cancer, and specific items suggested in the biomedical or anthropological literature, from my
previous popular media readings or conversations about cancer or breast
cancer, or by the informants themselves as being possibly causally related to
breast cancer. I tried to include as many items as possible so as to capture the
full range of informants’ ideas. (Appendix A) Prior to interviews with the actual
participants in the study, I pre-tested my questionnaires with three African-
American female friends. This pre-testing yielded culturally appropriate
terminology, changes in question phrasing, and additional questions. Also, the
pre-testing made it clear that when the respondents were assessing risk factors,
they were not assessing their own risks. It was necessary to specifically ask the
respondents to discuss their ideas about what is risky both to others (women in
general) and to themselves.

I conducted three in-person interviews with each of the 40 study
participants and each interview lasted from one and one/half to three hours.
Most of the interviews took place in the participant’s home or workplace. I
conducted several interviews in restaurants or coffee shops, and I conducted
four interviews in my home at the participants’ requests.

Prior to the first interview, I explained the project and my requirements to
each respondent and asked each to sign a consent form. (Appendix A) This
consent form included permission to audiotape record the interview sessions.
One participant elected not to allow tape recording of any of the three interviews.
One participant chose not to be recorded at the first interview, but then granted
permission to tape record the two subsequent interviews.
The first interview included open-ended questions about the women's life histories, their general health, reproductive, breast-feeding, and childrearing histories, sources of health information and general knowledge, trusted sources of information, ways of knowing when something is true, perceptions of general risks to health, and ideas about the meanings of misfortune in people's lives. (Usually for reasons of time, I did not ask all 40 women all the questions. The numbers of respondents noted in the tables that follow reflect these disparities.)

In the second interview, I elicited the informants' (partial) explanatory models of breast cancer by asking certain of Kleinman's suggested questions (1980:106) and other questions to explore the informants' understandings of this disease and the meanings that are attributed to breasts. I also asked them about the characteristics of women they considered at risk of developing breast cancer and their assessment of their own risk status.

In the third interview, I investigated the women's understandings of risk information in the popular media by asking open-ended questions about their reactions to this sort of information. I then listed a number of items that have been linked to cancer or breast cancer in the popular, biomedical, or anthropological literature, or that women had mentioned previously. The list of items thus grew, so all the women were not presented with the same items. That is, if an item was suggested by an informant, only women who were interviewed after it was suggested were questioned about that item. I included in the analysis only those items that at least 20 women had rated, however. This criterion eliminated six items from the analysis that had been suggested by
informants: noise, hate, sexual abuse, masturbation, lack of social or emotional support, and being easily annoyed.

For each item listed in the third interview, I first asked each woman to choose a number on a Likert-like scale ranging from one to five that indicated the degree to which she agreed that exposure to or experience with this item increased any woman’s risk of developing breast cancer (1 = Strongly disagree, 2 = Disagree, 3 = Possible, Not sure, 4 = Agree; 5 = Strongly agree). I next asked her to choose a number from the same scale that indicated the degree to which she agreed that her own exposure to or experience with the item increased her personal risk of developing breast cancer. I kept a card that displayed the meanings I had assigned to the five numbers in front of each woman during this interview. For example, in response to the item, “Family history of breast cancer,” a woman might have chosen the numbers, “Four” and “One”. These choices indicated that, 1) the woman agreed that having a family history of breast cancer increased any woman’s risk of developing the disease, and, 2) she strongly disagreed that her family history increased her own risk. Thus, for each item, I asked each woman to choose two numbers on a scale ranging from one to five that ranked her degree of endorsement (from negative to positive) that the item was causally related to breast cancer or that the item increased her personal risk.

I conducted the interviews in a conversational style that included mutual self-disclosure (that is, I answered the informants’ questions about myself), probing for further details and clarification (e.g., “Can you tell me more about
that?). I used reflective listening techniques to ensure that I had heard and understood the responses and to encourage further dialogue (e.g., I often said, “In other words, . . . ”). If an informant did not understand an item or was confused as to which of several meanings to assign to an item or which of several interpretations of a question to answer, I told them that I was interested in the meaning or interpretation she chose. If an informant did not have any ideas about a question or item and asked me to explain, I briefly did so. I always stressed that people had different ideas, that I was interested in their ideas, and that I was not judging whether their answers were right or wrong—I emphasized that the interviews were not tests.

Using a perspective of embodiment, when relevant, I asked women to describe any sensations or emotions they might have experienced regarding the subject area of the question. For example, in questions concerning ways of knowing, I asked women what knowing “felt like.” In another example, when women indicated that they perceived an item to be risky for breast cancer, I asked them to tell me why they believed the item was dangerous, both from the perspective of their ethnophysiological logic and from an embodiment (in my usage of the term) perspective of their sensory experience of the item. For example, one informant described the “smell” of radiation she had experienced.

At the end of the interviews I answered the women’s questions about breast cancer to the best of my ability (stressing that I was not a biomedical professional), encouraged women to take preventive actions, and usually gave the women breast cancer-related pamphlets. I also gave each woman either a...
picture frame or a breast cancer awareness pink ribbon pin or key chain as a token of my appreciation and a reminder of the importance of breast health.

Monitoring of Information Sources

During the interviews I asked the participants to name their significant sources of health information which I then monitored for breast cancer-related information.

Participant Observation Activities

I attended various social events, religious services, lectures, performances, meetings, etc. in various settings in the County that were suggested to me by my informants or that I was aware of through the local popular media, and I engaged in informal conversations with fellow participants. I also attended various specifically breast cancer-related events that took place in the Cleveland area, such as the “Race for the Cure,” the Cleveland Women’s Cancer Project art show, and a conference on breast cancer and the environment in Dayton, OH (see below). These activities helped me to better understand the social and cultural contexts within which experiences, understandings, and risk perceptions of breast cancer are embedded.

DATA ANALYSIS

Overview

I first transcribed all interviews verbatim, and used both quantitative and qualitative analytical techniques to analyze the responses to the interview questions. Since the study was descriptive and exploratory, the emphasis of the analysis was not to strictly quantify who said what and develop predictive
models, but rather to describe the range of the women's ideas and experiences, to discern themes, and ascertain patterns of shared ideas. All analyses attempted to reduce the data by organizing informants' ideas about various aspects of the research questions into categories and to discern both etic variation according to commonly accepted categories of difference imposed on the data (i.e., age and education) and emic differences that became apparent from analyses of the data themselves.

**Sources of Health Information and Ways of Knowing**

In the first interview, I asked informants about their sources of health information, the sources they trusted, how they assessed the "truth" of information, and their experience of knowing truth. I analyzed their responses in tables that first listed each response by age and education (see below), and then grouped the responses into categories by age and education.

**Ascertaining Etiologic Models**

An initial examination of the data revealed that certain women tended to think alike regarding the etiology of breast cancer. To ascertain groups of similar-thinking women, I analyzed the data both quantitatively and qualitatively. Quantitative analysis using the numeric ratings assigned to various items by the women in the third interviews was a beginning classificatory step. Qualitative analysis of all the narrative data, however, was the final determinant of the classificatory scheme.

I first classified all the items mentioned in the open-ended interviews into eleven categories, each including from one to six different items. I treated each
of these categories as a subscale and summed the ratings that each woman had chosen for each of the items in each category, calculating a total score for each of these subscales.

In my effort to ascertain groups of similarly thinking women, I needed to use all of the items presented in the third interview (many of which had not been spontaneously mentioned) as well. I also wanted to determine their emic organization, rather than an organization I imposed on them. Though the number of items rated in the third interview exceeded the total number of women in the sample, since my use of the results was to be very limited, I performed a factor analysis of the ratings of all the items presented in the third interview using SPSS's principal components analysis (paired deletion of missing values). I rotated the resulting solution using the equamax rotation procedure. This analysis produced a six-factor solution. I included items in each factor that loaded .6 or above on the factor and that did not load .3 or above on any other factor, choosing these endpoints arbitrarily to make the factors more interpretable and to ensure that they were as orthogonal as possible. Five factors remained for use in further analysis.

Following the same procedure used for the categories of spontaneously mentioned items, I treated each factor that emerged from the factor analysis as an additional subscale. I summed the total ratings each woman had given for all the items included in each factor, calculating total scores for each woman for each of these five additional subscales. I used these total scores for each of the category and factor subscales for each woman (i.e., 16 subscales) as clustering
variables, and performed a cluster analysis (Ward's method, squared Euclidean distance, standardized z scores) to obtain an initial grouping of the women.

Though women may have rated items similarly (that is, assigned the same numbers to items), the qualitative analysis helped interpret the meaning of those numbers. I concluded that some items were more important in the women's causal thinking than others and thus, deserved more weight in discerning etiologic groups. I, in effect, weighted the items based on my understandings of which items were more important. Working from the initial groupings discerned by the cluster analysis, I adjusted these groupings until women who had ranked the more heavily weighted items similarly were grouped together. In brief, I found that there were two major models of breast cancer etiology, each with three different subgroups within it.

I next reorganized the categories of open-ended responses and the factors obtained from the factor analysis into 12 categories of causal items, again basing the reorganization on understandings gleaned from review of the interview transcripts. I then calculated the mean of the ratings assigned to the items in each of these 12 categories and their standard deviations for each of the six groups of women I had found, as well as the means of the ratings and standard deviations for each of the 12 categories for the whole sample of 40 women. I constructed a table that compared the mean ratings and standard deviations for each group of women to the mean ratings and standard deviations for the whole sample to demonstrate both the differences among the model groups and the relative similarity within the groups.
Next, I compared the results of analyses of risks to women in general to analyses of the items according to the ratings women had chosen for the items regarding their own personal risk. I constructed a table of median ratings for each item in each of the 12 causal categories for each of the six groups of women, comparing the median ratings of items indicating risk to women in general to the median ratings of items indicating personal risks to women.

I then constructed tables that analyzed each group's sources of health information, trusted sources, and ways of knowing. Finally, I analyzed each group of women's responses to other open-ended questions about the women's explanatory models of breast cancer, and searched for themes and patterns in their ideas. I present the analyses of each group's explanatory models in separate chapters and profile a woman who holds each major model.

**Etic Variation in Etiologic Ideas – Analysis by Age and Education**

I initially selected participants from four arbitrarily divided age categories, because I wanted to ensure that the sample included women from across the adult age spectrum. But because the sample size was small, I wanted to increase the number of women in each cell for analyses by age and education, and so I needed to collapse these four age categories into two. No emic age classification scheme was apparent in my data, so I selected a dividing point, the age of 50, which had meaning in biomedical discourse. The age of 50 is a point at which screening advice given to women differs, that is, the benefits of screening are not questioned for women over the age of 50, but there is still disagreement about the value of mammography for women younger than 50,
particularly those between the age of 40 and 49 (e.g., National Institutes of Health 1997). I therefore thought it would be useful to ascertain differences in the women's risk perceptions according to this division. Dividing the women into two age categories and two education level categories resulted in four age/education groups used in analyses, each including ten women: college-educated women below age 50, college-educated women age 50 and above, non-college educated women below age 50, and non-college educated women age 50 and above. I calculated the percentages of women in each age/education category holding specific ideas and constructed tables that compared and contrasted groups with each other to discern patterns of difference.

**Overall Personal Risk Perceptions**

I ascertained the women's overall personal risk perceptions from two questions. First, following a question about whether the informants believed that some women are more at risk of developing breast cancer than others, I asked the participants if they thought they fell into any "at risk" category. Second, after obtaining all the numeric ratings for the items in the third interview, I asked each respondent about her perceptions of her own chance of developing breast cancer in view of the items we had discussed. If a woman answered negatively to both questions, I classified her as perceiving that she was "not at risk"; if she answered positively to both questions, I classified her as perceiving herself as "at risk"; and, if she answered "yes" to one and "no" to the other, I classified her as "ambivalent." These categories represent general trends of thought, however,

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and do not necessarily predict how any woman would rate specific items in terms of personal risk. For example, women who did not perceive themselves to be at risk in a global sense held that their exposure to or experience with some items did increase their personal risk to some degree.

I analyzed these responses both by etiologic model groups and by age and education.

Reliability and Validity and Limitations to the Study

Power Relations

There has been much discussion within anthropology and feminist scholarship in general about power relations within the research situation, and the ethics, and even the possibility, of representing the other. According to some researchers, many women of color resent Euro-American intrusions into their private lives (e.g., in Dyck, Lynam, and Anderson 1995), exploiting women's time and trust to advance their careers. Many have concluded that it is impossible for Euro-American women to learn anything of value by conducting research with women of color: the differences are too vast and the potential for exploitation too great.

Anthropologists, however, have always studied the other, believing that our own otherness enabled us to see what is cultural, and not natural. Besides, anyone other than oneself is, obviously, always an other. Age, education, income level, native region, sexual orientation, and religious background, just to name a few factors, all create difference even among members of the same ethnic group. For example, among African-Americans, skin color is an important
marker of difference (e.g., Dressler 1993). My own identity as a white woman from a powerful and prestigious institution (Case Western Reserve University) certainly affected the study and its results, but it was part of my responsibility to help make the women feel safe with someone who sometimes clearly held more of society's power. Only some power, however, resided with me, and the power differentials between my informants and myself were fluid.

**Self-Disclosure**

Another research issue is the appropriate degree of self-disclosure in the conduct of research. As is the case with many researchers, my interest in my research questions derived from personal experiences. When the study participants asked me why I had chosen this particular topic, I answered that several friends and family members had suffered with cancer (none from breast cancer) and so I was particularly interested in cancer, though I chose a cancer site with which I had had no personal experience. I continued to answer my respondents' questions about my life when they arose, and many came to know one of my children since sometimes the two of us attended various events. I believe that sharing my own experiences with my informants helped to establish bonds that encouraged the women to talk, though this style may also impact on the responses that are given. There was much variation in the responses, however, and the women did not seem reluctant to respond in truthful ways whether they felt that their response agreed with my ideas or not. For example, some women asked about my religious beliefs; my answers did not seem to inhibit them from discussing their often very different ideas.
External Validity

The external validity of this study is limited since the number of informants is necessarily small due to the demands of intensive qualitative research. In addition, the sample is not representative of all African-American women. The sample was self-selected and was biased in unknown ways. For example, I could not recruit in every area of the county, and obviously, I only talked to those women who consented to be interviewed.

I asked the participants why some women would not want to participate in such a study. Possible reasons given were that some African American women would be suspicious of any white woman asking questions, some women might not want anyone else, white or Black, to "know their business," some women would be reluctant to discuss such an intimate subject as breasts, and some women would not want to spend the time. Further research would be needed to ascertain if other women would respond differently.

Several methods were used to increase the reliability and validity of the data and its analysis. Participants confirmed or disconfirmed their own and others' responses and my interpretations throughout the interviews and participant observation activities. I talked to several informants and other African-American women I have met about my findings and they have confirmed what I have described and stated that my interpretations make sense to them. Though the study has limitations, my findings are grounded in my informants words and experiences, and I contend that the data and findings are "credible, transferable, dependable, and confirmable" (Denzin and Lincoln 1993:14).
CHAPTER IV

KNOWLEDGE SECTORS OF THE ETHNOMEDICAL SYSTEM: THE CUYAHOGA COUNTY CONTEXT

Kleinman (1980) identified three overlapping sectors of any local health system, the professional, the popular, and the folk, in which knowledge about afflictions is constructed. These three sectors do not operate independently of one another. Rather, each informs the others and overlaps them in a constant dynamic. Knowledge accessed and produced in these sectors, in turn, serves as raw material for the construction of “thought models” with which people approach and understand new information (e.g., Devereux 1978). This chapter first briefly sketches the history of African-Americans in Cuyahoga County, a history that has generated diversity in experiences, as the general context of the study. Next, I outline the biomedical, popular, and folk knowledge that is available to women in this area to use in the creation of their own knowledge about breast cancer, its risks, and its prevention. Finally, I review research findings to date on African-American women’s knowledge of breast cancer and the cancer etiology knowledge of two other groups, Navajos and Euro-Americans found by Csordas (1989).

AFRICAN-AMERICANS IN CUYAHOGA COUNTY, OHIO

As Cuyahoga County, Ohio thrived, declined, and revived, the fortunes of the city’s Black people thrived, declined, and, for some, revived along with it. In the 1700’s, the Connecticut Western Reserve, of which Cuyahoga County was a part, was a bastion of New England abolitionists. The city of Cleveland enjoyed

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a reputation of hospitality to Black people. Black people lived throughout the city (though most were concentrated on the east side of the Cuyahoga River), owned businesses, practiced professions, and attended integrated schools and (some) churches.

Beginning in the early 20th century, however, European immigrants and southern Blacks swelled the population in response to industries’ demands. Both Euro-Americans and jobs began to flee the city. Hostility replaced hospitality, and over time, large numbers of African-Americans became segregated in the dilapidated inner-city ghetto. In the 1950's and 60's, however, white suburbs in the county began to open to middle-class Blacks, and there is now a considerable Black presence (of all classes) in integrated east side suburbs such as Cleveland Heights, Shaker Heights, Beachwood, and Pepper Pike as well as an increased presence on the West side of the county. Taking advantage of educational and job opportunities that ensued from the civil rights movement, substantial numbers of Black men and women moved to the middle and upper middle classes and now enjoy their standards of living.

The large concentration of Black people in the city at least led to some political power, and Cleveland elected the first Black mayor of a major American city, Carl Stokes, in 1967. Industrial jobs and the city school system continued to decline and "white flight" from the city and now, the inner ring suburbs, has persisted to outlying Geauga, Portage, and Summit counties. Jobs continue to be scarce in the inner city where large numbers of poor Black people live (Davis 1972; Hemmons 1989; Campbell and Miggins 1988).
Cleveland, however, is currently experiencing a renaissance and boasts a new sports complex, waterfront development, and other civic projects such as the Rock and Roll Hall of Fame, all of which bring some jobs back to the city. Whether this will benefit the many African-Americans caught in the inner-city remains to be seen. Whether more Black people will continue to move into the middle class and whether already middle class Blacks can continue to enjoy their gains in an increasing nationwide political climate of intolerance and impatience with social programs also remains to be seen.

THE PROFESSIONAL BIOMEDICAL SECTOR

In Biomedicine, “cancer” is understood to be a group of diseases characterized by the uncontrollable growth of disorganized, dysfunctional cells. “Breast cancer” refers specifically to a number of malignancies that originate in breast tissue. The biomedically understood diseases known as cancer have accounted for virtually countless deaths in the past 50 years. Spurred by these deaths, Congress declared war on cancer in 1971. Since then, billions of dollars have been spent on cancer research. Most of these dollars have gone into understanding the pathophysiology of cancer and into developing treatments. Relatively little has been spent on understanding the causes of cancer(s) (e.g., Epstein 1979; Proctor 1995).

Knowledge about the causes of a disease, the factors that influence whether any individual will develop it, and the course the disease will take can contribute to preventing and controlling the disease (e.g., Mettlin 1988). Producing this knowledge about cancer, however, is extraordinarily difficult and
scientists have not identified a single cause of breast cancer (e.g., Timko and Janoff-Bulman 1985; Mansfield 1993; Crowe 1996). There are many possibilities: Mansfield (1993), for example, includes genetic, hormonal, metabolic, dietary, and secretory factors, and exposure to environmental carcinogens or irradiation in his list of etiologic candidates.

Epidemiological studies of breast cancer's distribution over persons, time, and space can identify women who are at increased risk of developing the disease even if its etiology is unknown. These studies also are extremely difficult and expensive to conduct, and they have numerous limitations. For example, incidence data are difficult to obtain and are often even less reliable than death rates. Since most cancers take a long time to develop, it is difficult to measure exposures that may have occurred much earlier and to ensure that controls have not also been exposed. In prospective studies, subjects must be followed for long periods of time. It is also difficult to control for other exposures and the possible interactions among them. Furthermore, there is no global, or even national, tumor registry. People who may have been exposed as children to a carcinogen in their hometown may live in various parts of the world when their cancers appear. There is no way to link these people to their childhood exposure: no cluster will be identified and investigated when their cases are noted. Additionally, carcinogenic mechanisms and interactions among various carcinogens and other factors are not well understood. Finally, experimental studies in animals, often used to identify carcinogens, may not be generalizable to humans, and computer modeling of carcinogenic substances may not be
accurate (cf. Muir and Sasco 1990; Marks n.d.). Despite these difficulties, researchers have identified the risk and protective factors noted in Chapter II, though, again, 75% percent of women who develop breast cancer have no known risk factors (e.g., Fuller, et al. 1992; Long 1990).

Current biomedical primary prevention approaches include identification and regulation of possible carcinogens in food, water, air, etc.; reduction of occupational exposures; lifestyle behaviors including dietary recommendations (e.g., less fat, more fruits and vegetables), exercise, avoidance of alcohol and tobacco; chemoprevention (such as Tamoxifen and retinols); prophylactic surgery (i.e., mastectomy), and developing vaccines against oncogenic viruses (e.g., Fentiman 1991; Bowen, et al. 1993; Greenwald, Kramer, and Weed 1995). Biomedicine’s main breast cancer prevention recommendation in the U.S. is secondary prevention: early detection through mammographic screening, regular breast exams by a physician, and monthly breast self-exams (BSE) (cf. Payer 1989). The rationale for this emphasis is that primary prevention cannot be implemented if we do not know the causes, and since the disease is often curable if it is detected at an early stage (e.g., Ellerhorst-Ryan and Goeldner 1992), efforts to increase early detection will reap the greatest rewards.

Controversy within the biomedical community, however, surrounds the recommended guidelines for mammographic screening and the efficacy of BSE. Until recently the National Cancer Institute recommended mammograms every one to two years for women aged 40-49. Because of the lack of clear evidence that the use of mammograms resulted in significant reductions in mortality in this
age group, the Institute issued a very controversial consensus statement in 1997 from which two panel members dissented. It stated.

The Panel concludes that the data currently available do not warrant a universal recommendation for mammography for all women in their forties. Each woman should decide for herself whether to undergo mammography. Her decision may be based not only on an objective analysis of the scientific evidence and consideration of her individual medical history, but also on how she perceives and weighs each potential risk and benefit, the values she places on each, and how she deals with uncertainty.

The safety of mammography is also questioned by some. For example, the consensus statement reflected the view that the risks of mammograms outweighed the benefits for women age 40-49. In another example, Samuel Epstein, author of *The Politics of Cancer* (1979), argues against mammography in general, but he is particularly incensed at the practice of irradiating the breasts of young women who have a family history of premenopausal breast cancer and thus are high risk. According to Epstein, a dose of radiation is the last thing these women's breasts need ("Breast Cancer and the Environment" conference, Wright State University, Dayton, OH, October 22, 1994).

Additionally, a physician and major breast cancer activist, Dr. Susan Love, questions the usefulness of BSE, saying essentially that the practice alienates women from their bodies, encouraging them to treat their breasts as minefields. She also maintains that there is no evidence to show that the practice reduces mortality (e.g., Cleveland Plain Dealer, August 1, 1995, p. 6-E).

McMullin, Chavez, and Hubbell's (1996) study also illustrates variation in biomedical breast cancer knowledge. They found that work settings influenced physicians' perceptions of breast cancer risk factors. Physicians who worked in
community-based settings were more likely to acknowledge that risk factors other than those biomedically identified were possibilities than physicians who worked in university settings and who were thus closer to the producers of "official" risk factor knowledge. The authors conclude that the community-based doctors used intuition and experience in producing their knowledge of risks, not just "scientific facts." As this study and others demonstrate, there is a lack of consensus within biomedicine about breast cancer risks.

Finally, as noted above, research (e.g., Hahn and Gaines 1985; Lock and Gordon 1988; DiGiacomo 1987; Payer 1989; Pandolfi 1990; Lindenbaum and Lock 1993; Good 1994; Good and Delvecchio Good 1993; Delvecchio Good, et al. 1990; Gordon 1990, 1991) has amply demonstrated that professional ethnomedicines, including all variants of U.S. Biomedicine, are themselves culturally constructed. In short, professional Biomedicines are not monolithic, and knowledge and practice are contested within varieties of Biomedicine.

THE POPULAR SECTOR

The National Context

Both mainstream biomedical notions (and variation or versions thereof) and popular ideas constitute the popular ethnomedical sector. Information in much of the mass media draws heavily from Biomedicine and its relative, epidemiology, leading to what Lock (referring to hormone replacement therapy) calls the "language of risk's" domination of the "vocabulary of popular, medical and policy-making" (1993:147). The mass media reflect this biomedical orientation as they report new incidence and mortality data and risk factors that
have been identified or debunked. The media also reflect this orientation when they encourage lifestyle changes and screening behaviors, treating the body as "matter that can be manipulated through material means — less fat, less alcohol, less smoking and so on — inculcating ambitions to 'live correctly'" (Sachs 1995).

Black (1995) reviewed the cancer-related messages conveyed by popular women's magazines from 1929 to 1949. She found that articles in these magazines reflected a biomedical orientation and essentially sought to dispel two widespread myths: 1) cancers were contagious, and 2) all cancers were incurable. Most of these articles tried to inform the lay public by describing cancer and its early symptoms. Within this information lay assumptions about women's individual value vis-à-vis the value of others. Placing the responsibility for early detection on women themselves, the articles preached that women owed it to their families, rather than to themselves, to report symptoms to their doctors. Finally, in general, all the advice promoted early detection and treatment.

Some scholars and activists resist biomedical and so-called cancer establishment dominance in the popular sector. They, too, cite the political, economic, and cultural forces that shape Biomedicine's knowledge and practice, and thus problematize this knowledge. For example, Lupton (1994) conducted an analysis similar to Black's of articles about breast cancer in the Australian press during the years 1987 to 1990. She found that the themes were similar to the those of the American articles published 40 years earlier. Viewing these themes through a feminist lens, she argues that the "...press's portrayal of
breast cancer during that time drew upon dominant cultural metaphors and discourses concerning femininity, the individual's responsibility for illness, and medical and technological dominance" (1994:73). The language of risk was used to portray traditional reproductive and lifestyle choices for women as protective: women who “failed” to have children, who delayed childbearing, who pursued careers or wealth were at risk. These findings linking breast cancer to punishment for failure to take up a traditional role recall the horrors that Victorian medical men predicted for any women “selfish” enough to choose careers, for example: shriveled breasts, a hirsute face, amenorrhea, and a difficult menopause (Smith-Rosenberg 1985; Showalter 1985).

Again, the articles urged lifestyle modifications and technological interventions to make known the unseen and unfelt, but potentially deadly. They also exhorted women to be active and assertive in carrying out their responsibilities to practice screening behaviors and to insist on medical attention. These apparently contradictory messages -- women should stay in their “place,” yet assertively take responsibility for their health -- support Broom's (1991) contention: women are damned no matter what they do.

Proctor (1995) sheds light on the political processes that have shaped what scientists know about cancer and its risks. According to him, politics determines what research questions will receive funding and what knowledge is accepted as true. For example, economically conservative administrations attack risk assessment and regulatory policies that err on the side of caution as protecting the public against trivial risks. Proctor argues,
... that inadequate attention has been given to where and how one should look and act to discover causes and organize prevention. The concept of causation is part of the problem: much of the politics of cancer research lies in how far down in the chain of causation one is willing and able to look. Does one stop (or start) with genetics, or immunology, or epidemiology? When is a nation's health care or environmental policy (or the absence thereof) the cause of cancer? Can cancer be caused by elections, or recessions, or ad-induced habits and fashions? The question of where the 'real cause' lies is politicized, with the Left favoring ultimate (or social) causes and the Right favoring more proximate causal mechanisms. The emphasis on immediate mechanisms rather than social causes means that some of the more practical questions of cancer research—like how to get people to stop smoking or to remediate the radon in their workplaces—are rarely the objects of well-funded scientific attention (1995:14).

Breast cancer activists, many of them survivors or current patients, learned how to become political from AIDS activists and they now advocate vigorously for their agendas (e.g., Marshall 1993). Most call for more dollars and more input into how those dollars are spent. Many deplore the lack of progress in cancer treatment, complaining bitterly that doctors still can only "slash" with mutilating mastectomies, "poison" with deadly chemicals, and "burn" with radiation (e.g., Soffa 1994; Batt 1994). Many also criticize the lack of attention to primary prevention. For example, Virginia Soffa, a cancer survivor, locates the source of breast cancer in "profit-hungry industries, to which government agencies, authorized to protect us, are beholden" (1994:178).

Patterson's (1987) history of cancer in the U.S. is entitled, The Dread Disease. This image continues to shape public attitudes and knowledge about cancer. It has been widely written that famous women who have publicly acknowledged their breast cancer, such as Betty Ford, Shirley Temple Black,
Ann Jillian, and Nancy Reagan, brought breast cancer "out of the closet" and demonstrated that women could survive it. Notwithstanding this trend, and the public awareness of alternative ways of understanding cancer and breast cancer and the knowledge produced about them, cancer remains a dread disease in popular culture.

Balshem (1991, 1993), Sontag (1977), Delvecchio Good, et al. (1990), and DiGiacomo (1987; 1992) write that the contemporary meanings of cancer in the popular and professional U.S., and other Western ethnomedical sectors, are fear, mystery, debilitation, death, shame, victim-blaming, hope, and militarization. For Balshem's informants, even to speak cancer's name was dangerous; the speaking itself might draw cancer into one's orbit.

Within this context of dread, the particular meaning of breast cancer in dominant U.S. culture was articulated in the introduction to an article in *Life* magazine about breast cancer sufferers. "These women have been attacked close to the heart, their very symbol of femininity [the breasts] transformed from one of nurture to one of nature gone malevolently, malignantly wrong" (Dowling 1994:79.) Given the significance of breasts in U.S. culture (e.g., Yalom 1997), breast cancer is particularly dreadful: even if one survives, one's identity as a woman may be lost. Indeed, stories in the media abound of women who not only lost their breasts to cancer, but the ultimate symbol of heterosexual femininity and desirability, their men.
The Cuyahoga County Context

Women in Cuyahoga County were potentially exposed to numerous messages from the national and local media about breast cancer during the study period since breast cancer has become a major focus of media attention. National and local television programs, popular print media, radio shows, advertisements, and public service announcements focus on various aspects of cancer and breast cancer, reflecting the growing attention to the disease in the U.S. Even national corporations promote biomedically-sanctioned breast cancer preventative behaviors in the national media. For example, during the study period, the Kellogg Company ran advertisements on network television that depict a woman (of color) discreetly performing breast self-examination. The commercial then recommends a Kellogg's high fiber cereal as part of a low-fat diet that may help prevent the development of breast cancer (CBS Channel 8, February 22, 1994, 9:10 a.m.)

Cleveland is a major center of Biomedicine, it is home to several medical institutions self-identified as "world-class" (e.g., The Cleveland Clinic, University Hospitals, affiliated with Case Western Reserve University, and Mt. Sinai Hospital). Many people expend much effort in the Cleveland area to increase breast cancer awareness and promote secondary preventative behaviors among area women. For example, several local medical institutions have opened breast centers that specialize in the detection of breast disorders and their treatment. These centers' services are marketed through radio, television, newspaper, and direct mail advertising (e.g., Mt. Sinai Health Care System 1994). Pamphlets
produced for these breast centers list biomedically identified risk factors, but stress that all women are at risk and all need to practice screening behaviors.

Several Cuyahoga County organizations sponsor “Breast Cancer Awareness Month” annually in October. Awareness of the disease, its risk factors, early detection, treatment, and survival is promoted as empowering to women. During this month, pink ribbons (borrowed from the red ribbons of AIDS activists), the symbol of breast cancer awareness, abound. News stories and special events draw particular attention to the disease and education about risks, early detection, and treatment.

A “Race for the Cure,” sponsored nationally by the Susan G. Komen Foundation, is held annually in Cleveland. A coalition of women’s organizations such as the Junior League, LINKS (an African-American organization whose female members must be married to professional men), and the Women’s Coalition Against Breast Cancer backs the race locally. Additionally, Minority Women United Against Breast Cancer and LINKS, Inc. sponsor several events and activities to promote breast cancer awareness and early detection practices among minority women. Finally, the Cuyahoga County Department of Health, the American Cancer Society, and the YWCA sponsor free or low-cost mammograms accompanied by breast cancer education for low-income women.

An exhaustive review of all the information available in the popular sector in Cuyahoga County is beyond the scope of this project. However, I will briefly survey the major local media and discuss the general themes of the information presented. Print media articles (in newspapers including the Cleveland Plain
Dealer, Sun Press, the Call and Post, and The Free Times and popular magazines including Time, Life, Heart and Soul, Essence, Good Housekeeping, Glamour) published during the time of data collection for this study and radio and television programs repeated some of the major themes found in Black's and Lupton's studies. They highlighted the following topics: women's risks and responsibilities, breast cancer survivors, breast cancer and minority women, diagnostic and treatment breakthroughs, and scientific fraud in breast cancer treatment research.

Etiologic and risk-related stories in the local media derived from biomedical/epidemiological studies included heredity (the discoveries of breast cancer genes, BRCA1 and BRCA2, and the protein that the BRCA1 gene instructs cells to make), delayed childbearing (as an explanation for higher rates in professional women), smoking, increased risks for "baby boomers" for non-smoking related cancers, hormone replacement therapy, and environmental hazards including pesticides, particularly organochlorines, "bad" estrogen associated with increased risk of the disease, hair dye, and spontaneous or induced abortion.

One article, however, entitled "Prescription for confusion: Contradictory health studies give consumers headaches" (Cleveland Plain Dealer, April 23, 1995: 1-1), expressed the lay public's frustration with the uncertainty of the biomedical findings that the media report. To alleviate this confusion, scientists quoted in the article advised the public to understand the scientific knowledge

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production process and its cumulative nature, and to pay attention to the weight of the evidence, not any particular study.

Prevention advice again stressed secondary prevention rather than primary prevention measures other than diet and exercise. The articles encouraged women to perform screening behaviors, increase the fiber and lower the fat in their diets, and get regular exercise. Some articles also discussed barriers to screening such as fear, denial, cost (and insurance coverage), and lack of physician recommendations. Stories about diagnostic breakthroughs (e.g., using military detection devices to find tumors and measuring electrical currents in cancerous cells) and the safety of mammograms also appeared. Although breast-cancer related stories appeared throughout the year, they were particularly evident during Breast Cancer Awareness Month. The overall thrust of these stories was that women should be aware of their risks and their responsibilities. The possible causes of breast cancer were not a priority in most of these stories, though there were some exceptions.

Stories about breast cancer survivors featured their personal “battles against” the disease, their will to survive, the emotions the women experienced, their hope, their courage, and their desire to make their illness public to increase awareness of breast cancer and to give sufferers support and hope. For example, one article in the Plain Dealer included photographs of a woman’s chest after her double mastectomy (April 26, 1994:1-E). The woman’s expressed rationale for exposing her body was to show others the reality of the
disease and to inspire insistence on the development of non-mutilating treatments.

Several media messages focused on breast cancer and minority women. These often appeared in the Call and Post, the major African-American local news publication, and on African-American oriented radio stations (e.g., WJMO and WABQ), but also in the Plain Dealer and mainstream broadcast media. These messages stressed epidemiological findings (i.e., Black women were at risk of developing the disease and were more likely to die from it than other women) and survivors’ stories. They discussed the uniqueness of Black women’s breast cancer-related experience, sources of their denial or non-compliance with biomedical recommendations, unique barriers to screening and treatment, and unique difficulties they may have in coping with the disease. Black women were encouraged to take responsibility for their own breast health and, if the disease did develop, to become aware of treatment options, and to advocate assertively for themselves. Finally, according to these messages, Black women should band together and cope with their illnesses by gathering and sharing information, providing emotional support, and maintaining each other’s positive attitudes.

A major breast cancer-related story that broke during the study period was the revelation of scientific fraud in the conduct of a comparison of partial mastectomies or lumpectomies to more radical surgeries. A participating surgeon in Canada enrolled ineligible women in his study and falsified data. Compounding these problems, the University of Pittsburgh administrator of the
study was accused of failing to report the fraud or to re-evaluate the findings that radical interventions do not improve survival rates. An audit of the study by the National Cancer Institute (NCI) found that women who had not consented to participate had been included in the study. Subsequent analyses by study administrators and the NCI revealed the findings did not change when the tainted data were removed from the analyses. The public, however, remained fearful. A local columnist, a breast cancer survivor, envisioned a worst-case scenario; "Maybe the . . . doctor who entered false data into the studies wasn't the only one. Maybe more errors will be found; maybe the avalanche will change the study's conclusions" (Mallett 1994:E-1) Her doctor had recommended a lumpectomy on the basis of this study; she feared that perhaps he was wrong. The columnist did not want to be "reassured quickly on this matter. I want to be reassured definitively. All I ask is -- get it right" (ibid.), though "getting it right" may not be possible.

Other voices in the local popular sector also questioned biomedical knowledge. For example, the Cleveland Women's Cancer Project focuses its efforts on primary prevention and is more politically radical than other organizations. The group brings the national debates on the causes of breast cancer to Cleveland through events such as art shows and public fora that highlight environmental pollution and the social and economic conditions that may underlie the epidemiology of the disease. The group's activities also advance the idea that mainstream biomedical knowledge may not be the only valid and useful knowledge regarding breast cancer.
In sum, the preponderance of breast cancer information available to Cuyahoga County women in the popular sector during the study period generally promoted the biomedical themes of awareness, responsibility, and hope. Individual women should take responsibility for their own breast health through awareness of risk factors, screening behaviors, healthy lifestyles, and healthy coping if she has the disease. Furthermore, biomedical technology will eventually “win the war.” The media present much information on how to obtain and practice screening, how to live a healthy lifestyle, and how to “fight” breast cancer if one has it. Other voices clamor for attention to possible causes of breast cancer that are beyond individual responsibility as well, and challenge the preeminence and adequacy of biomedical knowledge. A combination of dread, hope, and faith in science to eventually get it right, however, undergirds them all (Press and Koenig 1996).

THE FOLK SECTOR

African-American Health Culture

Several scholars (e.g., Baer 1981; Scott 1974; Weidman 1978; Snow 1974, 1977, 1978, 1983, 1993) have studied African-American views of sickness, illness prevention, illness recovery, the causes of sickness, and folk healers. Though her informants are almost all lower-income women and she has been criticized for homogenizing African-Americans’ ideas (e.g. Fox 1995), Loudell Snow is the premier ethnographer of African-American health culture, which, according to Weidman, “refers to all phenomena associated with the maintenance of well-being and problems of sickness with which people cope in
traditional ways within their own social networks and institutional structures" (in Snow 1993:32). Much of the following discussion is taken from Walkin' Over Medicine, Snow's synthesis of her own and others' years of research.

Snow lists several historical roots of this health culture: ethnomedical knowledge brought to the New World by African ancestors; ethnomedical knowledge of the European colonists; and ethnomedical knowledge of Native Americans. Snow states that much of the knowledge she has researched is also shared by Southern whites, as each ethnic group's knowledge cross-fertilized the other's. This cultural cross-fertilization continues as new ideas from Biomedicine, new immigrants, other sections of the country, and other traditions are continually available.

Snow says, the African-American health system,

... is holistic in the best sense of world — so that the healthy individual is seen as possessing an integrated balance of body, mind, and spirit. It places the individual in an everyday world that is also more broadly conceived, so that the natural and the supernatural blend seamlessly (1993:35).

According to Snow, this system is characterized by a view of nature antithetical to the dominance model of Biomedicine. In this system, people are part of nature and must live and work within its laws; they are not its masters. Certain antinomies and themes structure this system. Among the binary oppositions are natural/unnatural, pure/impure, and inside/outside, good/evil, and God/self. Sicknesses are "natural" or "unnatural;" substances introduced into the body are "pure" or "impure;" the body can be closed to impurities or open and vulnerable to outside agents or conditions. The universe is the site of a colossal
struggle between the forces of good, symbolized by the (masculine) "God" and
the forces of evil, symbolized by the (masculine) "devil." The devil is powerful,
and keeps himself very busy making trouble for human beings, but God is in
supreme control. In Snow's words,

The underlying assumption (of this health culture) is that ultimate
power is vested in a god responsible for the construction of the
universe; a god believed to maintain a deep interest in his
creation. This personal interest includes a continuing regard for
each and every man, woman, and child (1993:46).

To maintain health, however, people must be knowledgeable about and
take care of themselves. God may reign, but He also expects people to do their
part. His Word, the Christian Bible, includes much advice on living a healthy life,
and people are wise to heed it. Thus, illness prevention has a moral cast.

The body, in this health culture, is seen as a container with passages in
which substances move from top to bottom. Once defenses are pierced,
malicious elements can directly damage the body part they encounter, or they
can block natural processes and cause problems elsewhere since all parts of the
body are connected via the bloodstream. The body is vulnerable through its
natural orifices, eyes, ears, nose, mouth, vagina, rectum, and pores. The soles
of the feet are also vulnerable as they are in direct contact with the earth. Inner
states of well-being attained by right conduct protect these natural openings.
Illness-causing agents or conditions such as heat and cold do not necessarily
work immediately, however. They can lodge in the body and do their damage
when the body is weak.
Natural sicknesses "attack" when people encounter the forces of nature without appropriate protection, as punishment for sin, or when it is God's will. Natural sicknesses are predictable and can occur if one is exposed to cold or if impurities in water, food, or air enter one's body. Natural illnesses can be avoided if one is temperate in one's daily practices, for example, if one does not eat or drink too much or stay out too late, and if one eats properly. Diet is critical to good health and people pay close attention to what goes in and what comes out of the body. Also, one should not eat certain combinations of foods for fear they will cause adverse "chemical reactions" (1993:78). People must keep clean, both inside and out, eat and drink appropriately, exercise regularly, stay warm, and get enough rest. Too much is just as unhealthy as not enough, for example, in one's sexual activity. On the whole, if one does not care for one's body and maintain proper balances, the body's defenses weaken and it is then open to intrusion from the outside.

People are particularly susceptible to natural sicknesses during certain times of the life cycle (e.g., during childhood, pregnancy, or old age) and during lunar and planetary cycles. Knowledge of one's zodiac sign can guide a person's health-related actions. Certain times are auspicious, certain times are not, certain things can help, certain things cannot -- all according to one's sign. Additionally, God can punish people for sin with natural sicknesses directly, or indirectly through sickness in their children; the Bible warns that "the sins of the fathers are visited on the children to the second and third generation" (quoted in Snow 1993:272). If a sick person is not obviously a sinner, her illness or those
of her children may be understood as a test of her faith or as something that cannot be understood by humans in this lifetime. All will be explained "by and by," that is, in the afterlife.

Women (and children) are also more prone to illness than men and adults. Female anatomy is one source of women's weakness: impurities can enter the body through the breasts and the vagina. Another source is menstruation with its loss of that most vital bodily fluid, blood. Women, however, maintain their health by regular menstruation, which is seen as a cleansing process. Furthermore, women use their menstrual periods as an indicator of their general state of health. A normal menstrual cycle tells them that their bodies are functioning normally as a whole.

Finally, natural sicknesses are more likely to develop if a person worries excessively. As one of Snow's informants put it,

If you're happy and feel good, then you will be healthy. But if you are unhappy, well, then you may as well forget about it, because worry can cause you to be sick, can take your mind . . . one way worriation is sure to come out is in sickness (1993:83).

Again, a close relationship with and trust in God is key. One can avoid worriation by "feeding the spirit," or developing spiritual strength by taking action: reading the Bible daily, going to church, praying, or helping someone.

Unnatural sicknesses come from evil influences that interfere with God's plan or, at worst, are the work of the devil. People within this ethnomedical tradition may think that unnatural sicknesses are caused by witchcraft. Certain people have the ability to use special powers for good or evil purposes. These powers are based on imitative and contagious magic. Things that are similar are
somehow linked: red foods can build up blood, for example. And, at the bidding of a jealous rival, a "rootworker" or conjurer can put a hex (or "work a mojo") on a person by using his or her fingernail or hair clippings, for if something is once part of a whole, the two can never be fully separated. Treatments for these sicknesses include religious practices, magic, charms, prayer cards, asafetida bags, and "natural" aids such as foods, medicines made from herbs and roots, or massage. Some hexes, however, can only be removed by the rootworker who placed the hex since they are the only ones who know the appropriate remedy (Snow 1993).

Adulterated food is also a source of ill health: one must be careful where and with whom one eats. Finally, menstrual blood is potentially dangerous, indicating a "deep ambivalence about the reproductive cycle" (Snow 1993:145). Mixing one's menstrual blood in a man's food can make him loving and faithful, but a woman's own blood can also be used against her in a hex.

Snow summarizes this folk model of health (again, presenting it as if all African-Americans held it, ignoring variation within the ethnic group):

... the idealized state that represents harmony and health is difficult to achieve and maintain in the best of circumstances. It means a constant monitoring of ever-shifting environmental factors that are capable of harming mind, body, and spirit. Staying well means paying attention to the natural environment; monitoring factors such as temperature, season, the signs of the zodiac, and so on. Staying well means paying attention to the supernatural environment; the Devil is everywhere and God keeps His eye on more than the sparrow. Staying well means paying attention to the social environment; relationships with others are fraught with opportunities for trouble. Staying well means being on guard.
Staying well also means moderation and the avoidance of excess. The body must be fed the proper foods, be rested, exercised, and kept clean inside and out or it will ‘break down on you’ in a variety of ways. The mind must be kept active and engaged but not become preoccupied in ‘worriation’ or your nerves, too, will ‘go down on you’ and you will fall ill. The spirit needs to be constantly aware of God’s love for His children lest sin or inattention result in divine punishment or Satan stepping in during a moment of spiritual weakness. Social relationships necessitate behaving in a fashion that will not arouse the envy or ire of others as revenge by magical means is merely a social misstep away.

AFRICAN-AMERICAN WOMEN’S ETHNOMEDICAL KNOWLEDGE ABOUT CANCER AND BREAST CANCER

As noted previously, little is known about African-American women’s breast cancer knowledge. Some anthropologists are beginning to make progress, but they do not address the diversity of knowledge among women of different backgrounds within this ethnic group, nor do they address whether the ideas they found are unique to African-Americans. Mathews (1987), Mathews, Lannin, and Mitchell (1994), Gregg and Curry (1994), and Wardlow and Curry (1996) have published articles on the cancer and breast cancer-related knowledge of primarily lower income Black women in North Carolina and Georgia. They have found that these women drew on all three sectors of knowledge, the professional biomedical, the popular, and the folk, to create their own understandings. As was true in investigations into African-American ethnomedical knowledge in general, religion provides a general context for breast cancer knowledge for most of the women in these studies. God’s will ultimately determined one’s health, and if a person became sick, the best recourse was to “turn it over to God” (Mathews, Lannin, and Mitchell 1994).
Mathews, Lannin, and Mitchell found that their informants' attitudes toward cancer were much like those of Balshem's (1991; 1993) Euro-American working class informants. Like the Euro-Americans, the African-American women also saw cancer as the worst possible disease because it is inevitably fatal. Gregg and Curry (1994) found that many women believed if someone is cured, then the person could not have had cancer. Furthermore, cancer means pain and loss of dignity before death. The women used their everyday experiences with plants and eating metaphors to understand cancer and breast cancer. Women often get lumps, or "knots," in their breasts, which are not necessarily anything to worry about. Something, however, changes if a knot remains too long. Something animates the knot, and it takes on a life of its own, "taking root," and "growing" out of control. Eventually, it devours its victim.

Etiologic ideas about cancer and breast cancer also combine biomedical, popular, and folk notions. Mathews, Lannin, and Mitchell (1994) found that for many women, the cause of cancer was a mystery. Anything, everything, or nothing was to blame. Wardlow and Curry (1996) found that many women understood breast cancer etiology through biomedical notions of heredity and diet. Gregg and Curry (1994) also found that women attributed cancer to excessive smoking and drinking, also biomedical ideas with histories in folk moral imperatives.

An idea in the biomedical and popular sector that incorporated the folk antinomies of natural/unnatural and pure/impure was that chemicals used in growing and processing foods caused cancer. Another idea from the folk sector
was that surgery caused cancer to spread by opening it up to the air. Mathews, Lannin, and Mitchell understood this to be an extension of the plant metaphor since plants draw sustenance from the sun, air, and water. Lumps encased within the body bloom when exposed to the nourishment the air provides. A further theme was that breast cancer is caused by bruises that turn into malignant knots. As Snow found, “the body remembers” (in Wardlow and Curry 1996: p. 324). Things that happen to the body, such as injuries, may not cause serious problems when they happen, but, if not treated, they bide their time, and activate when the body is weak. Since women are thought to be particularly weak, injuries to the breast, whether from blows or bruises or sexual activity, are particularly dangerous. Finally, the folk theme of action recurred in women’s talk about cancer and breast cancer. As noted above, God may be in supreme control, but it is up to the individual to help herself as much as she can, and to share what she knows with her kin.

Cancer and breast cancer had other meanings to the women in these studies as well. Wardlow and Curry interpreted the bruise-based etiology as a way for women to plead for men to stop hitting them on the breasts or handling breasts roughly during sex. Gregg and Curry found that women felt that cancer produces and exacerbates poverty. Poor or even middle class women may not be able to afford all the obvious or hidden requirements of proper treatment (e.g., drugs, food, transportation, child care, lost wages, household maintenance, etc.). Cancer was also equated with severe mental distress, perhaps the worst aspect of all. Just knowing that she has cancer may be what actually kills a woman.
ETIOLOGIC KNOWLEDGE IN COMPARISON GROUPS: NAVAJOS AND ANGLO-AMERICANS

Just as little is known about African-American women's etiologic knowledge regarding cancer, little is known about the ideas held by other groups as well. The following brief discussion summarizes Csordas' (1989) findings in his investigation of Navajo and Anglo-American etiologic ideas suggestive of a comparison to the findings of this study. These data only suggest a comparison, as there is little literature that would allow a full-scale comparison. Csordas states that,

Not only can illnesses be used as metaphors of society and social process . . . but the very features and processes that are attributed to illnesses and then projected onto social situations are themselves formulated in terms of dominant cultural metaphors (1989: 465).

It follows that, as social life differs, these differences will appear in the metaphors used to explain any sickness.

Accordingly, Csordas found that Anglo and Navajo understandings of the character and pathophysiology of cancer as well as their causal construals of cancer differed. For example, Navajo informants, who were themselves cancer patients, conceived as cancer as a "sore that does not heal" and understood its pathophysiological process to be rotting, rather than understanding cancer in the "idiom of growth," as did Anglo-American patients. He suggests that these different understandings arise from different cultural meanings of growth and decay in the two groups.

In Navajo thought, growth is construed as positive, whereas degeneration and decay are negative. Furthermore, according to Csordas, the Anglo
understanding of cancer as unchecked growth "is consistent with our fear of nature (and society) out of control" (1989: 465).

In addition, Navajos included as relatively prominent causes specific agents including lightning exposure, witchcraft, exertion, old age, animal violation, and ceremonial contamination, none of which was mentioned by an Anglo informant. Like their Anglo counterparts, they mentioned injury, diet, the environment, medication, heredity, alcohol, stress, and other illness, though they accorded them different priorities.

Anglo patients differentiated between agents that "caused" their disease and those that "were related to" their disease. Heredity was the most frequently mentioned causal factor and stress the most frequently mentioned related factor.

When these categories are combined, the ten leading etiologic factors were stress, heredity, injury, smoking, alcohol, diet, medication, illness, x-rays, and lifestyle, in that order. Only five of these were mentioned by Navajos. Other factors mentioned included weight, psychological distress, contagion, breast implants, and bad luck.

As an example of difference in ethnophysiological understandings, injury was mentioned by both groups, yet their mechanisms of action may be different. To Navajos, contamination (or infection) is a general path to ill health. In their ethnomedical system, injuries may "turn into cancer" because they may not heal properly and become a sore that does not heal or that "keeps on rotting" (1989: 469). Csordas tentatively hypothesizes that, in contrast, Anglo patients may understand injuries as able to start an abnormal growth process, that is, they
associate the lump or bump produced by an injury with a cancerous lump or growth.

In summary, Csordas states that,

despite over a century of assimilative pressure and despite the fact that all Navajo patients and received biomedical hospital treatment, the Navajo causal construal of cancer remains culturally distinct from that of Anglo-Americans (1989: 471).

SUMMARY

This chapter has presented the variety of ideas in the three sectors of the ethnomedical system available to the study participants. It has also outlined what is known about African-American women’s breast cancer knowledge and has presented Csordas’ findings about Navajo and Anglo-American cancer causal construals to serve as a brief comparison to the results of this study.

Accordingly, the next section presents those results.
SECTION II - RESULTS

CHAPTER V

"I FEEL IT, I JUST KNOW WHAT'S TRUE:"
SOURCES OF ETHNOMEDICAL INFORMATION

SOURCES OF HEALTH INFORMATION

As is evident in the section on the biomedical, popular, and folk sectors, there are many sources of ethnomedical information available to residents of the Cleveland area. When asked about their sources of health information, the women in this study said they gleaned information from multiple sources in the professional, popular, and folk sectors. Table 5.1 (Appendix B) lists the respondents' sources and the number and percentage of participants who included each source by education and age groups.

The sources listed in Table 5.1 may be classified into several groups: 1) Professional biomedical sources; 2) Popular media sources; 3) Social network sources; 4) Self-directed information gathering activities; and, 5) the Bible.

Table 5.2 lists the total percentage of responses represented by each of these groups by education and age.
TABLE 5.2

SOURCES OF HEALTH INFORMATION* (GROUPED)
PERCENTAGE OF TOTAL NUMBER OF RESPONSES
BY AGE AND EDUCATION GROUPS

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>ALL N=38**</th>
<th>COLLEGE &lt;50 N=10</th>
<th>COLLEGE &gt;=50 N=9</th>
<th>NON-COLLEGE &lt;50 N=10</th>
<th>NON-COLLEGE &gt;=50 N=9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional biomedical</td>
<td>38 38.7</td>
<td>10 41.6</td>
<td>12 46.1</td>
<td>7 28.0</td>
<td>9 39.1</td>
</tr>
<tr>
<td>Popular media</td>
<td>33 33.6</td>
<td>9 37.5</td>
<td>6 23.0</td>
<td>16 64.0</td>
<td>2 8.6</td>
</tr>
<tr>
<td>Social Networks</td>
<td>14 13.2</td>
<td>2 8.3</td>
<td>5 19.2</td>
<td>1 4.0</td>
<td>5 22.4</td>
</tr>
<tr>
<td>Self-directed</td>
<td>14 13.2</td>
<td>3 12.5</td>
<td>3 11.5</td>
<td>1 4.0</td>
<td>6 26.0</td>
</tr>
<tr>
<td>Spiritual</td>
<td>1 1.0</td>
<td>0 0.0</td>
<td>0 0.0</td>
<td>0 0.0</td>
<td>1 4.3</td>
</tr>
</tbody>
</table>

*Each informant may have given more than one answer.
**Two informants were not asked this question.

Professional biomedical sources included doctors, medical books and journals, pamphlets, nurses, pharmacists, and Medline. As Rhonda, a former nurse's assistant said simply, "They (biomedical professionals) got the education and I don't." Several women, both degreed and non-degreed, had health backgrounds or careers and thus had access to professional biomedical information in health care settings. Pamphlets that women received in medical offices or at events, etc. were also useful and authoritative.

Popular sources included television news and documentaries, newspapers, books, Black-oriented magazines, magazines, women's magazines, and public libraries where the women read popular books and magazine articles. Study participants watched television programs such as 60 Minutes, 20/20, and other news magazines, news broadcasts, talk shows such as Oprah, Jerry Springer, and Ricki Lake, and soap operas. Magazines mentioned included general women's magazines such as Glamour and Good...
Housekeeping and Black-oriented magazines including Essence, Jet, Ebony, and Heart and Soul. The Plain Dealer was also mentioned as a source, but national newspapers such as USA Today, the New York Times, or the Wall Street Journal were not, though articles in the Plain Dealer often come from the Times. Occasionally the women got health information from the Call and Post. Most of these sources repeated knowledge created in the professional biomedical sector, as noted above, but other sources provided a counter to this dominance, and many women looked to popular sources for information on alternative prevention and healing advice.

Respondents' social networks were also sources of health-related information. Friends, one's mother, members of one's sorority, support groups, and people with experience all provided information. Sometimes these people were biomedical professionals, thus creating overlap in these two categories. Educational fora were often presented at social gatherings, such as in participants' churches or masjids or at sorority meetings, and thus were included in the social network category.

Self-directed information gathering activities included reading, "anywhere I can get it," and one's own experience. The Bible was the only spiritual source spontaneously offered by anyone as a source of health-related information, but as we shall see below, the spiritual category is important to some women as a source of guidance. The one woman who mentioned the Bible said that it told how to live a healthy, good life.
No statistical tests of the relationships among these groups and age or education were possible because the number of cases represented in any one cell of the table was too small. Table 5.2, however, indicates that non-college educated women under the age of 50 were least likely to mention professional biomedical sources of information (28% compared to 39% for the respondents overall). These younger, less educated women were also more likely to rely on the popular media for their health information (62% compared to 34% overall). Non-college educated women over the age of 50 were least likely to rely on popular media (9% compared to 34% overall). Older women regardless of education were more likely to seek health-related information from members of their social networks (20% for college-educated women and 22% for non-college educated women compared to 15% overall). Non-college educated women over the age of 50 were most likely (26%) and non-college educated women under the age of 50 were least likely (4%) to mention self-directed activities as sources of their health-related information.

TRUSTWORTHINESS OF INFORMATION

Information was not accepted without question by any of the women: women decided if the source was trustworthy. Following the discussion of sources of health-related information, I asked informants (N=36) to list the sources they considered trustworthy. The number and percentage of respondents listing each source are displayed in Table 5.3 (Appendix B) by age and education groups.
The responses in Table 5.3 can be classified into the following groups that include the responses listed above: 1) Professional biomedical sources — Doctors; doctors, with the qualifications listed above; research; nurses; pharmacists; and other health professionals; 2) Popular media sources — Media; 3) Social network sources — Friends; mother; and relatives; 4) Self-directed information gathering activities — Self; information found by self; depends on person or situation; and get several opinions, then decide for oneself; and, 5) Spiritual sources — God; Bible; and the Holy Spirit. Table 5.4 lists the total percentage of responses represented by each of these groups by education and age.

**TABLE 5.4**
TRUSTED SOURCES OF HEALTH INFORMATION* (GROUPED)
PERCENTAGE OF TOTAL NUMBER OF RESPONSES
BY AGE AND EDUCATION GROUPS

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>ALL (N=36)**</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=7)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Professional biomedical</td>
<td>34</td>
<td>53.2</td>
<td>8</td>
<td>56.8</td>
<td>8</td>
</tr>
<tr>
<td>Popular media</td>
<td>2</td>
<td>3.1</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Social networks</td>
<td>11</td>
<td>17.3</td>
<td>4</td>
<td>28.6</td>
<td>1</td>
</tr>
<tr>
<td>Self-directed</td>
<td>9</td>
<td>14.1</td>
<td>2</td>
<td>14.2</td>
<td>1</td>
</tr>
<tr>
<td>Spiritual</td>
<td>6</td>
<td>9.5</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
</tr>
</tbody>
</table>

* Each informant may have given more than one answer.
** Four informants were not asked this question.

Medical doctors were the trusted source of health information mentioned most frequently. But doctors needed to posses certain characteristics to be trusted. For example, a few women only trusted female doctors. As Lydia, a college administrator, said, "When the first baby is extruded from a man's penis, that's when I'll go to a man!" Gayle, another professional woman whose
husband is a health care professional, only goes to doctors in her social network. Others did not care about their doctors’ gender or ethnicity as long as the doctors took time with them, did not patronize them, paid attention to their concerns, and provided information that made sense to them. A few mentioned that any trustworthy doctor should acknowledge his talents as God-given and that God was the ultimate healer. Bessie, a retired schoolteacher, said that she rarely went to doctors, but she had to feel as though the doctor was not just after her money to trust him/her.

The women also carefully scrutinized popular sources of health-related information for trustworthiness. For example, they looked at the personal characteristics of messengers. If the women liked the television personalities who presented the information, the information they conveyed was deemed more reliable. The women usually trusted magazines to do good research and looked primarily to the Black magazines to provide information about specific Black health concerns. As Winnie, a teacher, said, “I’m hoping and trusting that they would not place anything in here that was not correct.”

Most women regardless of education level were often skeptical of epidemiological and statistical information they read or heard. One executive mentioned the capriciousness of risk information. “I feel that today they give you one report and then if you listen closely, five years from now they give you another report changing this report. I think they’re guessing . . . .” Vicki, a young lawyer, referred to this phenomenon as “dueling studies.” If the information does not apply specifically to them, they dismissed it with an “Oh, really” attitude. As
Bessie said, "Sometimes I think those [stories] are just some journalists with nothing to do. They like to alarm people . . . ." Both college-educated and non-college educated women mentioned that they questioned the methodologies of studies that identified risk factors. As Ronette, a middle-aged mother and homemaker, said, "I'm always wondering, 'Who did they ask?'" Others recognized that statistical probabilities say nothing about any individual. Estelle, a secretary, said, "[They] (statistics) don't alarm me because I also know that that's just a given pool."

But most women, however, believe at least some of the information they hear. Rhonda said, "By me not going to college, there is people that have studied in them fields and they go out and do surveys and stuff, so they wouldn't bring it to national TV unless they got a good survey about what's really goin' on. . . ." Risk information often alarmed her about her personal health. A teacher's aide said that she "takes such information into consideration."

Many women were also particularly skeptical about epidemiological studies that compare Blacks and Whites. They will often reject studies that find higher risks in Black people, especially if the risks are attributed to genetic or other inherent characteristics. Such information is seen as another attempt by dominant whites to perpetuate negative images of Blacks. Several women particularly resented reports that incidence of AIDS was higher in Blacks.

Veronica, an elderly child care worker who resented such reports said that they conveyed the impression that, "Everything bad comes from them [Black people]." According to the participants, Black and White bodies work in the
same: why should one group be more prone to illnesses than another.

Reflecting the Biblical story of creation, Paula, a secretary who also was an undergraduate, said, “It’s just my personal belief that WE separate it. Humankind came from two people so we just happen to be different colors.” Joanne said in relation to breast cancer, “Breasts is breasts. What difference would the color make?” Estelle said, “As The Bell Curve demonstrates, raw data can be manipulated to say whatever you want it to say.”

If there are differences in risks among ethnic groups, they are generally not attributed to inherent characteristics of Black or White bodies (except often in relation to sickle cell anemia), but rather to socioeconomic conditions or dietary practices. Poverty with its attendant lack of access to health care and traditional high fat diets are probably to blame for any differences that might occur, in some women’s view. Sally, a dietitian, however, knew from her experience that Black people suffered more from high blood pressure, diabetes, and lactose intolerance. She appreciated any studies that paid attention to these differences and she thought that some of these differences were genetically, rather than environmentally, based.

Respondents relied on themselves to determine what was true. Sometimes they thought information was true, sometimes they thought it was not. As Annette said, “Everything they write and say, I do not buy it!” All of the women, when describing their epistemologies, said things like, “It just has to make sense to me,” or, “If it makes sense to me when I read about it or if it’s crazy, it’s crazy!”
Table 5.4 indicates some differences among women of different age and education levels. Younger women were least likely to mention professional biomedical sources (41.7% of non-college educated and 56.8% of college-educated women under the age of 50 compared to 61.6% of both college-educated and non-college educated women over the age of 50). The popular media were not trusted by many women in this study; only non-college educated women in both age groups mentioned them at all as trustworthy sources (4.2% and 7.7%). Women under the age of 50 regardless of education are more likely to trust members of their social networks for health-related information (28.5% and 25% for women under the age of 50 compared to 7.7% and 0% for women over the age of 50). College-educated women over the age of 50 were least likely to trust their own information gathering activities (7.7% compared to 14.1% overall) but were most likely to trust spiritual sources (23.1% compared to 9.5% overall). Only college-educated women under the age of 50 did not mentioned spiritual sources at all.

THE STUDY PARTICIPANTS' WAYS OF KNOWING

Following the questions about the women's sources of health-related information and which sources they trusted most, I asked most of the women (N=34) how they know what they know and how they judge if information is true. They answered both in terms of knowing whether information imparted to them is true, predicting the future, and knowing how to act in certain situations. Table 5.5 (Appendix B) presents the number and percentage of informants who listed
each way of knowing in response to these questions by age and education groups.

The responses in Table 5.5 can be classified into the following groups, though again, the groups overlap: 1) Sensations - Gut feelings/intuition; listen to body; feel good, comfortable; feel uncomfortable; from within yourself; ghost feelings; first instincts, vibes, and premonitions; 2) Revelatory events - Signs, things happen to make you know, and dreams; 3) “Objective” ways of knowing - Past experience; facts, article, etc.; if it agrees with what you already know; others’ body language; reading people; thinking; own values; common sense; and from elders; and, 4) Spiritual ways of knowing - Higher power, faith, Holy Spirit, prayer, God speaks to you, Jesus shows/tells; and the Bible. Table 5.6 lists the total percentage of responses represented by each of these groups by education and age.

TABLE 5.6
WAYS OF KNOWING IF SOMETHING IS TRUE* (GROUPED)
INFORMANTS NAMING EACH SOURCE
BY EDUCATION AND AGE GROUPS

<table>
<thead>
<tr>
<th>WAY OF KNOWING</th>
<th>ALL (N=34)**</th>
<th>COLLEGE &lt;50 (N=8)</th>
<th>COLLEGE &gt;=50 (N=7)</th>
<th>NON-COLLEGE &lt;50 (N=9)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Sensations</td>
<td>41</td>
<td>47.6</td>
<td>10</td>
<td>66.7</td>
<td>7</td>
</tr>
<tr>
<td>Revelatory Events</td>
<td>7</td>
<td>8.2</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>Objective ways</td>
<td>24</td>
<td>28.2</td>
<td>4</td>
<td>26.7</td>
<td>7</td>
</tr>
<tr>
<td>Spiritual</td>
<td>14</td>
<td>16.5</td>
<td>1</td>
<td>8.7</td>
<td>1</td>
</tr>
</tbody>
</table>

* Each informant may have given more than one answer.
** Six informants were not asked this question.
Nearly half of the 34 women who were asked about how they know what they know talked about sensations experienced in their bodies as a way of knowing when something was true or correct. These feelings could either be comfortable, indicating truth, or uncomfortable, indicating falsehood. For example, June, a 45-year old postal worker said, “If I feel good here [pointed to stomach], I go by my gut feeling. If something doesn’t upset me and I feel good about it and I’m calm about it then I’ll go with it. But if I get a little inkling or if something just don’t sit right with me, then I’m gonna move on.” Paula said that these “gut feelings” are like a jolt. A gut feeling is very strong. You just KNOW. A gut feeling is intense. . . I feel it, I think between my mind and my heart [center upper chest].” One woman believed that she should always trust her “first instincts.” Several women said that they “get in trouble” when they do not follow their gut “feelings,” “instincts,” or “intuition.” As Nora, a health educator, said, “This sounds very arrogant to say, but I honestly cannot remember having my intuition fail me.”

Rhonda told of her experience with her husband who was cheating on her with another woman in her own bedroom. When she walked into the room, “I had a feeling, it was like —your body felt funny. . . it was something like a ghost feeling that just went over your whole body telling you that someone’s been here but you couldn’t see. . . everyone’s made of some kind of spirit, so her spirit was still left in that room.”

A few women talked about their premonitions, again experiencing them in their bodies. Usually women described premonitions of negative events. For
example, Margaret, an older child care worker said, “It's a certain feeling that I have. I can't explain what it is but I get the feeling that I'm gonna hear something upsetting . . . it's a kind of nervous-like feeling . . . and sure enough, in two or three days, I hear something.” Marva, a retired nurse, said that her sister had had a premonition about her own cancer and about their father's death. To Gina, a young college student, the feeling she gets when something "bad" is about to happen is "that little anxiety attack thing that you get. I mean that's the only way I can describe it because it happens a lot with me because it's just like another sense. You just get this [made sound of deeply breathing in] . . . right in the middle of the chest."

Revelatory events were another way of knowing. For example, in some women's experience, dreams predicted the future, provided guidance, helped people understand things going on in their lives, or confirmed or disconfirmed information. Often dreams have predicted deaths in some informants' experience. Margaret told a story about dreaming of a choir in white robes: oon after a young relative was killed in a car accident. Some women wait for signs, often interpreted as coming from God, to tell them what was true or what to do in critical situations. Loretta, a college professor, said, “Oh, I don't wait on signs,” but in her experience things happened to make her way clear. She related that she did not want to move from her home after her husband died, but then a man tried to "con" her in that home. Her interpretation of this was that God allowed this to happen in order to help her make the decision to move. Others said that if things go smoothly, they know that they are on the right course.
Many women mentioned objective ways of knowing, but they relied on their critical powers and previous knowledge and experience to judge these "facts." For example, Alicia, a program administrator, said that she knew something was true if the person telling her shared her own sense of values. A similar woman said that if the new information agreed with what she already knew, then she would accept it as correct. Loretta used her previous experiences to judge new information or situations. Others mentioned that if something agreed with known facts, then it must be correct. Nora said,

If there's enough facts, enough articles about it--usually when I read an article I'm not just reading word for word, I'm trying to see if it makes sense to me, if there are loops, if there are gaps... and then if I have questions, I will try to find another article that will answer my questions and sometimes it answers what I'm thinking and that's when I trust it.

Some women talked about reading others' "body language" to judge if information imparted was true. Penny, a 30-year old receptionist, said, "If somebody lying, I can tell by their expressions, or if I say, 'You lying' and they say, 'No, I'm not, no, I'm not,' or the tone of your voice or you may get nervous or switch your hair or tangle or twist your hair..." Winnie, who was originally from Georgia, equated interpreting body language with intuition and said, "I'm very good at reading people... it's a Southern thing." When asked if it was a "female thing," this woman said, "I think it's probably a female thing. I've read lately that it's a female thing -- intuition -- and that we don't follow it enough." Others echoed this theme that women are generally more able to "feel" truth and to be "in touch" with these feelings than are men.
Sometimes God provides factual information and it is then up to the person to make use of it. Penny said, "I have to make up my own mind, I have to analyze . . . you can listen to a person all day long but you ain’t got to believe what they say. All you have to believe is what you believe in and what God brings to your face, your eyes." Other women also knew what they knew through spiritual means, or interpreted the experience of knowing spiritually. Vernita said that knowing something was similar to the sureness she felt in her religious faith.

Others took all concerns, including health-related concerns, to God in prayer and waited for answers. For example, if a doctor had told a woman something about her health and given her advice, she would pray about it and God, working through the Holy Spirit, would tell her whether or not the doctor and the advice were correct. Sometimes the Holy Spirit would reveal knowledge to the woman in a voice that the woman could actually hear. Veronica related that she could not find the right words for a presentation she was scheduled to give.

Informant: "...when I got in the shower, the words came to me . . . it spoke to me right through my ears -- it spoke to me."

J.M.: "So that you could hear it -- or just in your head?"

Informant: "YES! [Hear a voice] I came out of the shower and I knew then what to do. And then I presented it with calmness and relaxation and everything. . . . Once you have the Holy Spirit in you, and it’s like I say, it’s how you feed it, too, whether it’s activated all the time or not. . . . [the Bible says] Ask anything in My name and I will give it to you."
Table 5.6 reveals differences among age and education groups. Women over the age of 50 were least likely to mention bodily sensations as a way of knowing if something is true (41.2% of college educated women and 15% of non-college-educated women compared to 66.7% of college-educated younger women and 58.7% of non-college educated women). The older college-educated women were more likely than other women to mention objective ways of knowing and the older non-college-educated women were most likely to mention spiritual ways. In fact, several older non-college educated women knew in an embodied way, but they experienced this spiritually -- God, Jesus, or the Holy Spirit spoke to them or let them know in other embodied ways if something was true or right.

**SUMMARY**

In sum, the women in this study had much to draw from in constructing their own knowledge about breast cancer and its risks to others and to themselves. They combined specific breast cancer information produced by the professional biomedical, popular, and folk sectors and general ideas about health and illness and how the universe works in sometimes contradictory configurations. The women in this study look at information and its source, assess its trustworthiness, and determine if the information makes sense. Often, their bodies, through sensations, feelings, or emotions, help them to know. In the next chapters, we will see what the women gleaned from these ideas related to health in general and breast cancer in particular that are available to them and

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how different groups of women have come to different conclusions. We will also come to know the women quoted in this chapter better as individuals.
As we have seen, Mary Douglas pointed out that people select which dangers they will attend to from the myriad of perils surrounding them, and cultural factors influence this selection. In these next chapters I will present my informants' ideas about which of many possibilities pose a threat of breast cancer to women in general and to themselves in particular, their ideas about the mechanisms through which these threats operate, and the groupings into which these ideas fall.

Essentializing groups of people, that is, representing any group as naturally occurring and homogeneous in actions and ideas, misrepresents people and perpetuates stereotypes. Yet, that is how some groups, including women and African-Americans, are frequently portrayed in scholarly literature (e.g., Spelman 1988; Fox 1995). Far from finding homogeneity in ideas among the African-American women in this sample, as we saw in the previous chapter, women differed in their sources of information, the sources they trusted and their ways of knowing. In this chapter I begin to present evidence for variation in knowledge about breast cancer risks.

To briefly review the methodology presented in Chapter III, I searched for variation in ideas in two ways. I used the etic grouping variables, age and education, and examined the ideas of four different groups of women: college-educated women under age 50, college-educated women over age 50, non-
college educated women under age 50, and non-college educated women over age 50. I also analyzed the data to find emic variation. I used quantitative methods, including factor and cluster analyses, as well as qualitative interpretations of my data to ascertain groups of women who shared ideas regardless of imposed categories of difference. This analysis yielded two general models of breast cancer risks, the "Worldly" and the "Divine" models, each with three different types within it. Worldly model holders were divided into the "Folk," "Educated Folk," and "Buppie" groups. Divine model holders were divided into the "Nothing Causes It," "Anything is Possible," and the "God Put It There" groups.

The analytic methods used were iterative; each step was based on the results of the previous step. In this chapter, I present the results of each of these steps I took to ascertain the models, types, and members of groups whose etiologic thinking was similar. I also make general comments about findings and compare the ideas of the various groups. In the next chapter, I present the results of analyses according to age and education. In subsequent chapters in Section II, I discuss each type within the two general models, and profile a member of each general model group who typifies the thinking of her group, if possible, and who articulates her ideas particularly well.

DISCERNING MODELS

Step One: Classifying Responses to Open-Ended Questions

I first constructed an initial taxonomy of responses to the open-ended questions about breast cancer's etiology asked in the second interview. I
identified 11 categories of possibly risky items and labeled them according to my initial interpretations of these data: a) "Body" — risks resulting from bodily characteristics of conditions that one is born with or that are part of the human condition; b) "Germs" — microbes found in the biological environment; c) "Reproduction" — items relating to human reproduction; d) "Synthetic chemicals;" e) "Energy forces" — sources of energy existing in nature that humans use for power; f) "Injuries" — assaults on female breasts from various factors; g) "Sex" — risks resulting from sexual behaviors; h) "Stress" — risks resulting from the "emotional" and "physical" strain of daily living; i) "Lifestyle" — general health-related practices; j) "Spiritual" — supernatural influences on health; and, k) "Social" — risks that arise from social interaction.

Table 6.1 (Appendix C) lists the spontaneously mentioned items included in each category.

**Step Two: Factor Analysis of Scaled Responses**

In the third interview, I presented each woman with over 60 items (Appendix A) considered by some to be possibly related to the development of breast cancer and asked her to rate the degree to which she agreed that the item was causally related to breast cancer development in women in general on a five-point Likert-like scale.

I performed a factor analysis on these ratings to develop an initial understanding of the emic organization of these items. A six-factor solution was most interpretable. Women did not necessarily think that all of the items that loaded highly on each factor posed a risk of breast cancer development; the
factors only indicate items that correlate with each other, thus suggesting underlying dimensions that collect the items loading on each factor.

There were many items, so no one item explains much variation in the data. Because so many items loaded on each factor, I included only items that loaded very highly (>0.6) on each factor and that did not load (>0.3) on any other factor to make the factors more interpretable and to ensure that the factors were as orthogonal as possible. These criteria eliminated one factor, Radon, on which only one item, radon, loaded (Factor loading = 0.55205).

The factors and items that remained indicated dimensions of thinking about breast cancer risks that were relatively uncorrelated with each other. Using understandings gained from initial readings of the qualitative data, I assigned the following labels to the five remaining factors: 1) Injury -- risk occurring through injury to the breasts; 2) Unnatural -- risks from radiation from various sources and polluted substances to which women may be exposed in the environment; 3) Burden -- risks from physical or emotional stressors; 4) Devil -- risk from the actions or influence of the supernatural being known as the devil; and 5) Social -- risk from social interaction.

Table 6.2 (Appendix C) lists the five factors, the items that loaded highly on each factor, factor loadings, eigenvalues, and the percent of variation explained by each item.

A comparison of Tables 6.1 and 6.2 shows that the factor structure is similar, but not completely analogous to the structure found in the open-ended responses above. For example, no factors analogous to the categories, Body
and Lifestyle emerged in the factor analysis. This would seem to be an artifact of the factor analytic method. The women consistently rated some of the items that fell into these categories (e.g., Family History, and a Poor Immune System or Smoking and Diet) as being highly related to cancer development. But homogeneously rated items, obviously, do not vary, and hence, do not load highly on any one factor. Rather, they may load on all or many of the factors (Kline 1994: 72-73). Therefore, factors analogous to these categories did not emerge in this analysis. Still, the factor analysis did yield information about how items correlated with each other, revealing emic dimensions of causal thinking that served to at least partially confirm the order I imposed on the data in classifying the open-ended responses.

Of course, I did not eliminate the items that did not load highly on any factor from my analysis since they were clearly important in the women's models (e.g., family history), but I used both the categories identified in the initial qualitative analysis and the factors identified in the quantitative analysis as the basis for the next step.

**Step Three: Cluster Analysis**

To begin to identify women who thought similarly, I treated each category and factor as a subscale, and computed total scores for each woman for each item in each category and factor, for a total of 16 subscales. For example, for the "Energy Forces" category subscale, if a woman gave Electrical Power Lines a rating of "4," Microwave Ovens a rating of "5," and Mammograms a rating of "3" on the Likert-like scale, her total score for this subscale is 12. Similarly, for
the "Unnatural" factor subscale, if the same woman gave Chemicals in the Water a rating of "5" and Radiation a rating of "5", her total score for this subscale is ten. Using these 16 subscale scores as clustering variables, I performed a cluster analysis to identify initial groups of women who thought in similar ways about what contributes to the development of breast cancer.

Deciding how many groups there are is arbitrary and artificial: there was so much individual variation in the women's ideas, it would have been possible to identify 40 models of breast cancer in this sample of 40. But there were also many shared ideas, and my initial understandings of each woman's ideas and whose ideas were similar suggested that a cluster solution of three major groups was reasonable. Table 6.3 lists the members of these three initial groups.
### TABLE 6.3
**MEMBERS OF INITIAL CLUSTERS**

<table>
<thead>
<tr>
<th>GROUP ONE</th>
<th>GROUP TWO</th>
<th>GROUP THREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penny</td>
<td>Loretta</td>
<td>Rhonda</td>
</tr>
<tr>
<td>Rondelle</td>
<td>Marva</td>
<td>Nora</td>
</tr>
<tr>
<td>Mary</td>
<td>Alicia</td>
<td>Barbara</td>
</tr>
<tr>
<td>Thelma</td>
<td>Phyllis</td>
<td>Sally</td>
</tr>
<tr>
<td>Winnie</td>
<td>Janellie</td>
<td>Shirley</td>
</tr>
<tr>
<td>Lydia</td>
<td>Estelle</td>
<td></td>
</tr>
<tr>
<td>Connie</td>
<td>Phoebe</td>
<td></td>
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<tr>
<td>Paula</td>
<td></td>
<td>Margaret</td>
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<tr>
<td>Ronette</td>
<td>Veronca</td>
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<td>Elizabeth</td>
<td>Verlene</td>
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</tr>
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<td>Vicki</td>
<td>Bonnie</td>
<td></td>
</tr>
<tr>
<td>Sharon</td>
<td>June</td>
<td></td>
</tr>
<tr>
<td>Hallie</td>
<td>Annette</td>
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</tr>
<tr>
<td>Lee</td>
<td>Joanne</td>
<td></td>
</tr>
<tr>
<td>Doreen</td>
<td>Bessie</td>
<td></td>
</tr>
<tr>
<td>Gayle</td>
<td>Vemita</td>
<td></td>
</tr>
<tr>
<td>Gina</td>
<td>Rachel</td>
<td>Sonia</td>
</tr>
</tbody>
</table>

**Step Four: Weighting the Items and Forming Final Groups**

Using these clusters as a starting point, I re-read each interview transcript and searched for commonalities and differences. The ratings the women assigned to the items were ordinal data, and not only did the ratings only indicate relative position on an ordinal scale, no item's rating of "5" or "3" was any different than any other item's rating of "5" or "3." However, by absorbing and thinking about what my informants said and meant, I found that the items were not of equal importance in the women's etiologic models. I considered the item, "God's will" to be more important than the others because it indexed a fundamental difference in the women's causal thinking about breast cancer. Though Snow (1993) found that God's will was held to be the ultimate determinant of an individual's health in her homogeneous African-American ethnomedical system (see Chapter II), I found that, regarding breast cancer
development, some women invoked this explanation and some women did not. Additionally, a few additional items, though not as fundamental as God’s will, also were more important indices of differences in the women's thinking than other items. For example, nearly everyone agreed that family history, the immune system, radiation, food additives, and environmental pesticides contributed to breast cancer. The women, however, differed particularly in their ratings for sexual behaviors, injuries, and germs. In addition, they differed because some women agreed that many items were causal factors while others attributed risk to many fewer items.

I therefore weighted the items differently to determine the number and the composition of the groups. I first concluded that there were two general models of breast cancer operating in this sample of women that were indexed by their ratings for the item, God’s will. I named the general models the “Worldly” model, whose holders included women who did not attribute breast cancer ultimately to God’s will, but rather to biological mechanisms or social interactions with human beings. I named the second model, the “Divine” model. Its holders included women who thought the ultimate cause of breast cancer was that God willed that particular women develop it, though God could work his will through “worldly” means. I classified each woman as holding one of these two general models depending on the rating she chose for the item, God’s will, and her explanation of her thinking. Generally, women were classified as holding a Worldly model if they rated God’s will at “2” or below. Three women who rated the item a “3” were classified as holding this model because they did not indicate
that God's will was ultimately responsible for breast cancer in an individual woman, but, rather, they thought that it could possibly be God's will in some cases (See below). Table 6.4 lists the median rating the holders of each model assigned to God's will.

**TABLE 6.4**
**MEDIAN RATING FOR GOD'S WILL BY GENERAL MODEL**

<table>
<thead>
<tr>
<th>MODEL TYPE</th>
<th>WORLDLY MODEL (N=22)</th>
<th>DIVINE MODEL (N=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDIAN RATING</td>
<td>1.0</td>
<td>4.5</td>
</tr>
</tbody>
</table>

As this table shows, the median rating for the item, God's will, among holders of the Worldly model was 1.0, indicating general strong disagreement that God's will was causally related to breast cancer. In contrast, the median rating among holders of the Divine model was 4.5, indicating general agreement to strong agreement that God's will was causally related.

As stated above, the women who subscribed to a Worldly model located the cause of breast cancer in the earthly world and dismissed notions that it is God's will that breast cancer develop in any particular woman. They tended to think that cancer/breast cancer development could be explained using biologic or scientific theories of cause and effect, though science has not yet done so. Some agreed that sorcery, which originated in unhappy social relations with persons of the earthly world though it is usually considered a supernatural phenomenon, could also account for breast cancer development. Though breast cancer causation is undetermined, to the women who held a Worldly model, its cause lies in naturalistic processes or processes that involve social relations with others of this, rather than the supernatural, world.
The women who subscribed to the Divine model tended to emphasize that the cause of breast cancer remains a mystery, and that its epidemiology is random. Though many biological or "natural" factors (or even "unnatural" factors such as conjuring, in Snow's terms) may contribute to its development, and there are many behaviors women should adopt or avoid to lessen their risk of developing the disease, the ultimate cause of breast cancer is God's will.

Divine model holders answered the "Why me?" question with a spiritual answer. Since the epidemiology of breast cancer makes no sense to them, the real cause must be that God willed it to happen to particular women for some reason. This explanation is grounded in empirical observations: the women who hold this model have observed women who "do everything right" develop breast cancer and they have seen women who "do everything wrong" remain healthy. To them, an ultimate religious cause supplies the missing explanatory link.

Statements to this effect abound among women who hold this model.

For example, Janelle said,

I think that it's predetermined who will get it, God predetermined what form it will come in, predetermined if it will be curable, if it will be painful, if it will be a slow death, a quick death. It's all predetermined. And there again, I don't know if man can do anything about it.

In contrast, Worldly model holders did not express to me that a supernatural being is the ultimate cause of breast cancer. Most of these women were very religious and believed that God was the supreme ruler of the universe. The concept of God's will as an explanation of misfortune was culturally available to them as part of the Christian tradition, and several women used it to explain
other events or circumstances, particularly death. They agreed that breast
cancer etiology was very mysterious. But, if they endorsed God's will as
contributory, they viewed it as contributory only, and only in certain cases. To
none of these women was God's will the ultimate cause of breast cancer; they
simply did not invoke this explanation in the context of these interviews about
breast cancer. Generally, these women made statements such as Hallie's: "It is
not God's will for babies to die," meaning that God did not deliberately will
misfortune on people. And, Annette said, "I don't think it [misfortune] is so much
as meant to happen to Millie and not to John. Sometimes, it's just the natural
order of things."

But within each model, women also differed according to their ratings for
other categories of items, particularly for sexual behaviors, injuries, and germs,
on the numbers of items they considered risky, and on the particular way in
which God exerted his will. To form subgroups based on these differences, I first
divided the women in each of the three initial clusters into two groups based on
whether the woman held a Worldly or Divine model. Within each of these two
major groups, using the initial clusters as a starting point, I assigned women to
three subgroups based on their ratings of these other items and their
explanations of mechanisms. (Group Six consisted of only two women who
could be considered outliers rather than constituting a group of their own. For
the purposes of this exploratory study, however, I have analyzed their responses
as a separate group because they expressed a different conception of the major
marker of difference between groups of women, the action of God's will, which
may emerge as an important difference in future studies with larger samples.) I then named each subgroup according to some dominant feature or orientation of the members' ideas or their demographic characteristics. Table 6.5 presents the members of the final groups and the names assigned to each group.

### TABLE 6.5
**MEMBERS OF THE MODEL GROUPS**

<table>
<thead>
<tr>
<th></th>
<th>WORLDLY MODEL</th>
<th></th>
<th>DIVINE MODEL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Folk (N=11)</td>
<td>Educated Folk (N=4)</td>
<td>Buppie (N=7)</td>
<td>Nothing Causes It (N=11)</td>
</tr>
<tr>
<td>Rondelle</td>
<td>Gayle</td>
<td>Marva</td>
<td>Loretta</td>
<td>Rhonda</td>
</tr>
<tr>
<td>Thelma</td>
<td>Gina</td>
<td>Elizabeth</td>
<td>Alicia</td>
<td>Nora</td>
</tr>
<tr>
<td>Willie</td>
<td>Sally</td>
<td>Vicki</td>
<td>Phyllis</td>
<td>Barbara</td>
</tr>
<tr>
<td>Margaret</td>
<td>Bessie</td>
<td>Sharon</td>
<td>Janelle</td>
<td>Estelle</td>
</tr>
<tr>
<td>Veronica</td>
<td>Hallie</td>
<td>Lydia</td>
<td>Phoebe</td>
<td></td>
</tr>
<tr>
<td>Verene</td>
<td>Lee</td>
<td>Connie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annette</td>
<td>Doreen</td>
<td>Paula</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joanne</td>
<td></td>
<td>Ronette</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vernita</td>
<td>Shirley</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rachel</td>
<td>Bonnie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sonia</td>
<td></td>
<td>June</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FINAL CLASSIFICATION OF CAUSAL ITEMS**

Based on my interpretations of the meanings of various items, I reorganized the categories and factors above into a final classification scheme. For example, I had originally classified “Medications” in the Chemicals category since in the open-ended responses, women seemed to emphasize their synthetic, unnatural nature. I originally classified “Mammograms” in the Energy Forces category because women who spontaneously mentioned mammograms were concerned about the radiation involved. When asked about these items specifically in the third interview, other informants talked more generally about the dangers of many biomedical interventions, and some women saw the danger from mammograms as residing in their injury potential. So I created a new...
category, "Biomedical Interventions" to capture the various meanings attached to these and other items.

Also, though "lack of exercise," "weight," and "bottling up feelings" coalesced as a Burden factor in the factor analysis, the women's talk did not support a separate category for these items, in my estimation. Accordingly, I included "lack of exercise" in the Lifestyle category since it seemed to be thought of as a health-related behavior as were the other items in this category, I included "weight" in the Body category since the women talked about it as a condition of their bodies, and I included "bottling-up feelings" in the Stress category, since most women explicitly connected this item to stress as they understood it. Further research could endeavor to understand why these three items loaded highly on one factor and could perhaps, justify a separate classification category.

I also added to the original Sex category since risk from items related to sexual behaviors were thought to result from either injury, infection, or breakdown of the body (Snow, e.g., 1993).

The 12 final etiologic categories are: Characteristics or Conditions of Bodies, Injuries, Germs and Infection, Sex, Reproduction, Natural Energy Forces, Synthetic Chemicals, Lifestyle, Stress, Biomedical Interventions, Spiritual Agents, and Social Interaction. Items included in each category are as follows: 1) Characteristics or Conditions of Bodies -- family history, poor immune system, maternal nutrition during gestation, imbalance in the body, clogged up bodies, female bodies (including female hormones and big breasts), poor health,
weight, and aging. (I also include the informants' ideas about African-American bodies, though I did not include this as an item in the third interview, and thus, have no scaled responses to it); 1) Injury -- tight clothing and injuries, bumps, or bruises to the breast; 2) Germs and Infection -- germs; 3) Sex -- immoral sex, abnormal sex, playing with the breasts during sexual activity, rough handling of the breasts during sexual activity, not enough sex, father or mother "messed" around while one's mother was pregnant, and sexually transmitted diseases; 4) Reproduction -- breastfeeding, not breastfeeding, no children, too many children, having children too late, having children too early, and having children too close together; 5) Energy Forces -- sunlight, radiation, microwaves, electrical power lines, appliances, and lightning; 6) Synthetic Chemicals -- chemicals used on hair, pesticides, food additives, chemicals in the environment, chemicals in the water, chemicals in cleaning supplies; 7) Lifestyle -- diet, eating certain foods, caffeine, tobacco, secondhand smoke, alcohol, and exercise; 8) Stress -- stress, bottling up feelings, negative thinking, not enough faith, and working too hard; 9) Biomedical Interventions -- x-rays, mammograms, medications, birth control pills, hormone replacement therapy, breast implants surgery, biopsies, and abortions; 10) Spiritual Agents -- punishment by God, God's will, luck, the devil, and working roots; and, 11) Social Interaction -- talk and contagion as well as opinions expressed in response to open-ended questions about societal conditions that may contribute to breast cancer incidence or mortality among African-American women.
Categories of ideas in the models, of course, overlap: for example, the women mixed etiological and pathophysiological ideas in their talk. The categories only serve as an organizing framework, and should not be reified. They are not separate compartments in the women's thinking, and it is impossible to completely separate them in analysis and presentation of the data. As causal thinking is the focus of the dissertation, I concentrate on these ideas. I use all the data, however, to elaborate the models.

DIFFERENCES AMONG THE MODEL GROUPS

As stated above, groups within each general model differed from each other in terms of the items members felt were contributory or causal factors for breast cancer (as well as a fundamental difference ideas about how God exerts his will). To indicate the differences among the groups, Table 6.6 (Appendix C) presents the average ratings of the items in each category and their standard deviations for the sample as a whole and for each group of women.

Table 6.6 demonstrates, first, that the six groups of women differed from each other in terms of items deemed to play some causal role in breast cancer development. For example, the members of the Buppie and the God Put It There groups disagreed on the role played by germs in breast cancer etiology (Mean ratings of 1.00 and 5.00 respectively). The members of the Buppie group found no role and the members of the God Put It There group strongly agreed that germs were contributors. As a second example, the members of the Nothing Causes It group were less likely to think that Lifestyle items contributed to breast cancer development than members of other groups (Mean rating of
2.55 compared to mean ratings of 3.35, 3.26, 3.20, 3.89, and 3.14 for each of the other groups).

Second, 91% of the each group's standard deviations for each category (bolded figures) are less than the standard deviations from the mean ratings for each category for the sample as a whole. This demonstrates that the groups were more similar to each other than the sample as a whole was similar.

**SOURCES OF HEALTH INFORMATION, SOURCES MOST TRUSTED, AND WAYS OF KNOWING BY MODEL GROUPS**

Tables 6.7-6.9 list the percentage of responses mentioned by each group for each category of the women's sources of health information, sources most trusted, and ways of knowing when something is true that were discussed in Chapter V.

**TABLE 6.7**

**SOURCES OF HEALTH INFORMATION BY MODEL GROUPS**

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Professional Biomedical</th>
<th>Popular Media</th>
<th>Social Networks</th>
<th>Self-directed</th>
<th>Spiritual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Folk</td>
<td>1</td>
<td>45.8</td>
<td>7</td>
<td>29.2</td>
<td>5</td>
</tr>
<tr>
<td>Educated Folk</td>
<td>5</td>
<td>62.5</td>
<td>3</td>
<td>37.5</td>
<td>0</td>
</tr>
<tr>
<td>Buppie</td>
<td>10</td>
<td>55.7</td>
<td>4</td>
<td>22.4</td>
<td>3</td>
</tr>
<tr>
<td>Nothing Causes It</td>
<td>7</td>
<td>19.5</td>
<td>22</td>
<td>61.1</td>
<td>5</td>
</tr>
<tr>
<td>Anything is Possible</td>
<td>4</td>
<td>40.0</td>
<td>6</td>
<td>60.0</td>
<td>0</td>
</tr>
<tr>
<td>God Put it There</td>
<td>1</td>
<td>50.0</td>
<td>1</td>
<td>50.0</td>
<td>0</td>
</tr>
</tbody>
</table>

*% indicates percentage of total number of responses

According to Table 6.7, for Worldly model holders (the Folk, Educated Folk, and Buppie groups), professional biomedical sources were the most important sources of health-related information, whereas for the Nothing Causes It and Anything Is Possible groups, popular sources are most important. One
woman from the God Put It There group cited professional sources and one cited popular sources. Few members of any group mentioned self-directed or spiritual sources as primary.

| TABLE 6.8 |
| TRUSTED SOURCES OF HEALTH INFORMATION BY MODEL GROUPS |

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Professional Biomedical</th>
<th>Popular Media</th>
<th>Social Networks</th>
<th>Self-directed</th>
<th>Spiritual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Folk</td>
<td>7</td>
<td>53.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Educated Folk</td>
<td>2</td>
<td>40.0</td>
<td>1</td>
<td>20.0</td>
<td>0</td>
</tr>
<tr>
<td>Buppie</td>
<td>6</td>
<td>54.6</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>Nothing Causes It</td>
<td>10</td>
<td>52.7</td>
<td>1</td>
<td>5.3</td>
<td>3</td>
</tr>
<tr>
<td>Anything is Possible</td>
<td>7</td>
<td>53.9</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
</tr>
<tr>
<td>God Put It There</td>
<td>2</td>
<td>66.6</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
</tbody>
</table>

*% indicates percentage of total number of responses

According to Table 6.8, in five of six model groups, at least half of the women said professional biomedical sources were trusted sources of health information. The Educated Folk women (four of five of whom were college-educated women over the age of 50) trusted biomedical and self-directed sources of information equally. Only the women of the Folk group, most of whom were older, non-college educated women, said they trusted spiritual sources to any degree. The popular media were trusted slightly by women of Educated Folk group, but others discounted their trustworthiness. Finally, at least one-third of the sources mentioned as trustworthy by the women in the Nothing Causes It group and the God Put It There group women were others in their social networks. The Buppie group women, who were young, college-
educated women, often mentioned their mothers as a trusted source of health information.

**TABLE 6.9**
WAYS OF KNOWING BY MODEL GROUPS

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Sensations</th>
<th>Revelatory Events</th>
<th>Objective</th>
<th>Spiritual Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%*</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Folk</td>
<td>6</td>
<td>30.0</td>
<td>3</td>
<td>15.0</td>
</tr>
<tr>
<td>Educated Folk</td>
<td>3</td>
<td>37.5</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Buppie</td>
<td>8</td>
<td>66.7</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>Nothing Causes It</td>
<td>18</td>
<td>60.0</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Anything is Possible</td>
<td>5</td>
<td>45.5</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>God Put It There</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*% indicates percentage of total number of responses*

The most striking finding revealed by Table 6.9 is the prominence of "Sensations" as a way of knowing for all model groups except the God Put It There group. Sensations are a prominent way of knowing for every age and education category as well, since the women in Groups One through Five come from all the age and education categories. So-called Objective ways of knowing are particularly important to the Educated Folk and God Put It There groups, and Spiritual ways were only important to members of the Folk group and the God Put It There group.

**RISKS TO SELF**

The women were divided into model groups based on shared ideas about items that posed breast cancer risks to women in general. However, as many researchers have found, an optimistic bias (e.g., Weinstein, Klotz, and Sandman
1988) operates when referring to oneself: women often do not believe that factors that they consider risky for others are risky to themselves. This is often referred to as "denial." On the other hand, some researchers have claimed that women inappropriately inflate their own risk of breast cancer because of the media attention given to the disease (e.g., Daly, et al. 1996). In the discussions of each model group that follow in Chapters VII-XIV, I include the group members' ideas not only about risk factors for women in general, but also their ideas about the factors that increase their own personal risk. I also include the reasons they consider themselves to be at risk from certain items and not at risk from others to better understand the source and content of optimistic bias or denial and of so-called inflated fears.

Regarding personal risk, women who held a Divine model thought that they were just as vulnerable as anyone else to God's willing breast cancer for them. For example, speaking of herself, Bonnie said simply, "I guess if God didn't want you to have it, you wouldn't have it, would you?" Estelle, and others, also expressed the idea that God "allows" things to happen as consequences of our behavior or of natural forces, but, again, whether she, or anyone, develops breast cancer or not is whether it in His ultimate plan for her life. She may "need" breast cancer to learn lessons God wants her to learn regardless of her behavior or other exposures. Again, this idea serves as an explanation for otherwise unexplainable misfortunes. Many women, however, had a gut feeling about themselves that God would not will breast cancer for them (See below).
In contrast, as would be expected, the holders of a Worldly model of breast cancer etiology did not regard themselves as personally vulnerable to God's will with respect to breast cancer. Again, though Margaret, Lee, and Thelma, whom I have classified as holding a Worldly model, assigned a rating of "3" to God's will regarding their own personal risk (a rating that indicated some sense of riskiness), they held only that God's will might contribute to their developing breast cancer. God's will was not the ultimate determinant. Lee summed up her thinking in this way: "The reason that I say '3' is that in some cases it may be His will, but in other cases, it may be as a result of our behavior." Thelma and Margaret also said that if either developed breast cancer, it would be the result of her behavior, but, since God was in charge, if she behaved in ways that induced breast cancer, He might allow it to develop.

Comparison of Items Considered Risky to Others and Risky to Self

Table 6.10 lists the items included in each category. In this table, "% Scoring the Item >= 3.0" indicates the percentage of women who gave the item a rating of "3" or more, indicating some concern that the item may play a role in breast cancer etiology or increase one's personal risk. If more than 50% of the women assigned a rating of "3" or above to any item, that percentage is shaded in the table.
### TABLE 6.10
**COMPARISON OF RISKS TO OTHERS AND RISKS TO SELF**

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Risks to Others % Scoring the Item</th>
<th>Risks to Self % Scoring the Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&gt;=3.0*</td>
<td>&gt;=3.0*</td>
</tr>
<tr>
<td><strong>Body</strong></td>
<td>Family History</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor Immune System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maternal Nutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Imbalance in the Body</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clogged-up Body</td>
<td>37.5%</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>Poor Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female Hormones</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Big Breasts</td>
<td>25.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td></td>
<td>Aging</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Injuries</strong></td>
<td>Tight Clothes</td>
<td>25.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>Injuries, bumps, and bruises</td>
<td>25.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td><strong>Germs/Inf.</strong></td>
<td>Germs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*%’s >=50% are shaded.*

### TABLE 6.10 cont.
**COMPARISON OF RISKS TO OTHERS AND RISKS TO SELF cont.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Risks to Others % Scoring the Item</th>
<th>Risks to Self % Scoring the Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&gt;=3.0*</td>
<td>&gt;=3.0*</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>Immoral Sex</td>
<td>40.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td></td>
<td>Abnormal Sex</td>
<td>40.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td></td>
<td>Playing. Brsts.</td>
<td>25.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td></td>
<td>Rough Sex</td>
<td>47.5%</td>
<td>15.0%</td>
</tr>
<tr>
<td></td>
<td>No Sex</td>
<td>22.5%</td>
<td>17.5%</td>
</tr>
<tr>
<td></td>
<td>Parent Mess.</td>
<td>15.6%</td>
<td>6.3%</td>
</tr>
<tr>
<td></td>
<td>STD’s</td>
<td>15.6%</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Repro.</strong></td>
<td>Brstfdng</td>
<td>17.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td></td>
<td>Not Brstfdng</td>
<td>35.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td></td>
<td>No Chldm.</td>
<td>28.2%</td>
<td>17.9%</td>
</tr>
<tr>
<td></td>
<td>Too Many Chldm.</td>
<td>36.1%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Chldm. Too Early</td>
<td>37.1%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

*%’s >=50% are shaded.*

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### TABLE 6.10 cont.
**COMPARISON OF RISKS TO OTHERS AND RISKS TO SELF cont.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Risks to Others</th>
<th>Risks to Self</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Scoring the Item</td>
<td>% Scoring the Item</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;=3.0*</td>
<td>&gt;=3.0*</td>
<td></td>
</tr>
<tr>
<td>Repro..</td>
<td>Close Chldm.</td>
<td>41.7%</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Late Chldm.</td>
<td>24.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Nat. Energys</td>
<td>Sunlight</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Radiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microwaves</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power Lines</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appliances</td>
<td>47.5%</td>
<td>42.5%</td>
</tr>
<tr>
<td></td>
<td>Lightning</td>
<td>12.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Syn. Chem.</td>
<td>Hair Chemicals</td>
<td>37.5%</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>Pesticides</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food Additives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Envr. Chem.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water Chem.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clean. Chem.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* %’s >=50% are shaded.

### TABLE 6.10 cont.
**COMPARISON OF RISKS TO OTHERS AND RISKS TO SELF cont.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Risks to Others</th>
<th>Risks to Self</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Scoring the Item</td>
<td>% Scoring the Item</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;=3.0*</td>
<td>&gt;=3.0*</td>
<td></td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Caffeine</td>
<td>47.5%</td>
<td>32.5%</td>
</tr>
<tr>
<td></td>
<td>Tobac. Prod.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smoke</td>
<td></td>
<td>35.0%</td>
</tr>
<tr>
<td></td>
<td>Secondhand</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alcohol</td>
<td></td>
<td>15.0%</td>
</tr>
<tr>
<td></td>
<td>Exercise</td>
<td></td>
<td>32.5%</td>
</tr>
<tr>
<td>Stress</td>
<td>Stress</td>
<td></td>
<td>45.0%</td>
</tr>
<tr>
<td></td>
<td>Bottling-up Feelings</td>
<td></td>
<td>37.5%</td>
</tr>
<tr>
<td></td>
<td>Negative Thinking</td>
<td></td>
<td>30.0%</td>
</tr>
<tr>
<td></td>
<td>Not Enough Faith</td>
<td></td>
<td>27.5%</td>
</tr>
<tr>
<td></td>
<td>Working Too Hard</td>
<td></td>
<td>37.5%</td>
</tr>
<tr>
<td>Bio. Interv.</td>
<td>X-Rays</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mammograms</td>
<td></td>
<td>35.0%</td>
</tr>
</tbody>
</table>

*%’s >=50% are shaded.
The table demonstrates that the women considered many items dangerous in terms of breast cancer development to women in general, but they held that far fewer of these items posed a personal risk. Over half of the women rated 36 of 66 items (54.5%) as risky to women in general (>=3). Categories for which over half of the items were considered risky are: Characteristics or conditions of the body (80% of items); Injuries (50%), Germs and Infection (100% - 1 item), Natural energy forces (67%), Synthetic chemicals (83%), Lifestyle (100%), Stress (80%), and Biomedical interventions (60%). In contrast, over half the women in the total sample considered only ten of 66 items (15.2%) personally risky. Over half the items in only one category, Synthetic Chemicals, were perceived to pose personal danger to the women.
BREAST CANCER KNOWLEDGE: GENERAL COMMENTS

Before elaborating the different models of breast cancer risk knowledge in the next few chapters, some general comments can be made. First, though biomedicine conceptualizes cancer as an umbrella term for many different diseases, to most of my informants, “cancer is cancer,” a theme found in popular U.S. culture (e.g., Csordas 1989). A few women (N = 7) maintained that diseases called cancer differed in their lethality, treatment, and prognosis. But particularly in terms of its general characteristics and pathophysiology, breast cancer was differentiated from other cancers only by its location, and when discussing these two elements of their models, most informants referred to cancer in general rather than to breast cancer specifically.

On the other hand, though malignant processes (in both the etiological and pathophysiological senses) were usually held to be the same in all diseases called cancer, certain characteristics of female breasts were thought to make them vulnerable to malignancies, and certain carcinogenic agents were thought to particularly affect female breasts. So, sometimes breast cancer was discussed specifically, and it had meanings all its own.

Second, because breast cancer does not have a known causal agent, women conflate ideas about risk and etiology. A comparison with AIDS may illustrate this point. According to one biomedical model of AIDS, AIDS has an identified causal agent: Human Immunodeficiency Virus(es).
In this model, certain behaviors, such as having unprotected sexual intercourse, place people at risk of contracting the causal agent, HIV. Unprotected sexual intercourse does not cause AIDS, it is the mode of transmission of the causal agent, but engaging in unprotected sexual intercourse places one at risk of infection, and thus, of disease. In contrast, since no such established causal agents exist for breast cancer, in these women's models of breast cancer, risk factors become causal or contributory factors, and my informants posit causal or contributory mechanisms as the links between risk factors and breast cancer.

Third, cancer etiology was complicated to the women and no one had it figured out in a neat and tidy way. Rondelle, a retired cosmetologist, expressed the complexity of causal ideas about cancer well:

Many things could play a part in it. . . . I'm not closing the book on one thing because when you don't know, you have to leave the way open for other things and so forth to kind of study. If you close the book on one particular thing, you will either be at a standstill and you'll never go any further and you'll never know what could have been or what might have been the real cause or the real reason why we have certain things.

Finally, as has been found in studies of models of disease episodes (e.g., Kleinman 1980; Blumhagen 1982), models are not static, nor are they necessarily coherent, consistent, or logical. In this study, women often modified or contradicted ideas they had expressed earlier, and they were sometimes struck by the inconsistencies in their thinking. In sum, the women actively created their knowledge as we spoke.
They continually integrated, rejected, and reached answers that satisfied them, that “felt right,” at least for that moment, but their creations could change in the next. The discussion that follows attempts to organize the women’s knowledge into shared models, but should not be construed as a reification of those models. As Gaines maintains (1993), ethnomedical knowledge is a work in progress; these models represent moments in time, subject to all the constraints such moments impose.

SUMMARY

This chapter has presented the results of the steps taken to identify two major models of breast cancer etiology held by the women, each general model having three types within it. The discussion justified this organization by indicating differences among the groups on several dimensions. The chapter also presented results of analyses of the women’s sources of information and ways of knowing according to these model groups. Additionally, the discussion includes a comparison of the factors deemed risky to others and those thought to be risky to self and presented the results of analyses of overall personal risk perceptions according to the model groups. The chapter concluded with some general comments about the detailed presentations of the different model groups that follow.

In the next chapter, I examine variation within this sample by the etic categories of age and education. Following this chapter, the next eight chapters in this section deal with the emic classification of the women’s ideas into the different model types. First, I discuss each of the groups of women who hold a
Worldly model. After these three chapters, I profile Annette, a member of the Folk group. The next three chapters include a discussion of each of the three groups who hold a Divine model. Finally, I profile Lydia, a member of the Nothing Causes It group.
CHAPTER VII
VARIATION BY AGE AND EDUCATION GROUPS

This chapter presents the results of analyses of differences among the women in their ideas about breast cancer according to the etic variables, age and education on several dimensions. The women were divided into four age and education groups: college-educated women under the age of 50; college-educated women age 50 and over; non-college educated women under the age of 50; and non-college educated women age 50 and over.

GENERAL MODELS AND MODEL GROUPS

Table 7.1 lists the percentages of women who hold each major model by age and education categories.

<table>
<thead>
<tr>
<th>GENERAL MODEL</th>
<th>ALL (N=40)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td>Worldly</td>
<td>22 55.0</td>
<td>7 70.0</td>
<td>8 80.0</td>
<td>1 10.0</td>
<td>6 60.0</td>
</tr>
<tr>
<td>Divine</td>
<td>18 45.0</td>
<td>3 30.0</td>
<td>2 20.0</td>
<td>9 90.0</td>
<td>4 40.0</td>
</tr>
</tbody>
</table>

As this table demonstrates, age and education levels differentiate the women. Seventy-five percent of the college-educated women held a Worldly model, compared to only 35% of the non-college educated women. Whereas the college-educated women did not differ according to age category, age differentiated the women within the non-college educated group: only one non-
A degree-degreed woman under the age of 50 held a Worldly model, whereas six non-degree-degreed women over the age of 50 held this model.

Table 7.2 indicates the variation by age and education for the six model groups of women.

**TABLE 7.2**
**MODEL GROUPS BY AGE AND EDUCATION GROUPS**

<table>
<thead>
<tr>
<th>MODEL GROUP</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Folk (N=11)</td>
<td>1</td>
<td>10.0</td>
<td>4</td>
<td>40.0</td>
</tr>
<tr>
<td>Educated Folk (N=4)</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td>Buppie (N=7)</td>
<td>6</td>
<td>60.0</td>
<td>1</td>
<td>10.0</td>
</tr>
<tr>
<td>Nothing Causes It (N=11)</td>
<td>2</td>
<td>20.0</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td>Anything Is Possible (N=5)</td>
<td>1</td>
<td>10.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>God Put It There (N=2)</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

From Table 7.2, one can note that half of the members of the Folk group were over the age of 50, with 40% of the college-educated women over the age of 50 and 60% of the non-college-educated women over the age of 50 belonging to this group. Three of the four women in the Educated Folk group were college-educated and over the age of 50. All of the women in the Buppie group were college-educated and 86% were under the age of 50, justifying the "Black Urban Professional" label one member used to describe herself (somewhat analogous to the white "Yuppie", "Young Urban Professional" designation). Sixty-four percent of the women in the Nothing Causes It group were non-college educated and 64% were also under the age of 50. Sixty-percent of the women in the Anything Is Possible group were both under the age of 50 and non-college...
educated. Neither member of the God Put It There group was college-educated, though they were of different ages. It is clear from this table that most women over the age of 50 (70% of the college-educated and 60% of the non college-educated) held one of the two Folk models of breast cancer (Folk or Educated Folk); that is, they attributed breast cancer development to Worldly causes, many of which recalled the folk culture described by Snow. These two groups are particularly distinguished, however, by their ideas regarding the etiological role played by sexual behaviors.

**RISKS TO OTHERS AND TO SELF**

Tables 7.3 - 7.24 (Appendix D) lists the mean ratings and standard deviations of each risk item in each category for both risks to others and risks to self by age and education groups. Mean ratings >= 3.0 are shaded for the sample as a whole and for each age/education category. These tables indicate differences in ideas about what is risky both to others and to selves among the four age/education groups. These differences repeat some patterns we have already seen and, again, demonstrate that far fewer items are considered risky to oneself than are considered risky to others.

**Characteristics or Conditions of the Body** — All college educated women and non-college educated women over the age of 50 held similar ideas about the riskiness to others of the items in this category. The non-college educated women under the age of 50, however, only found family history risky. Additionally, only women over the age of 50 of both education levels considered
aging to be risky to others. Regarding risks to self, no groups rated any items $\geq 3.0$

**Injuries** – Only women over the age of 50 said that injuries (or “mashing”) from tight clothes or bumps and bruises could contribute to breast cancer. Again, no age/education group rated either item $\geq 3.0$ on the dimension of risk to self.

**Germs and Infection** – Non-college educated women of both age categories rated germs at $\geq 3.0$, indicating some degree of risk associated with the item. No group rated germs $\geq 3.0$ in terms of risk to self. **Sex** – Only non-college educated women over the age of 50 considered sexual items other than STD’s risky for breast cancer in others. No group rated any of these items $\geq 3.0$ in terms of risks to self.

**Reproduction** – The only reproduction item rated $\geq 3.0$ by any was having children too close, which was deemed risky to others by non-college educated women over the age of 50. No item was considered risky to self by any group.

**Natural Energy Forces** – All age and education groups considered “Radiation” risky to others. Women over the age of 50 of both education levels rated “Sunlight” $\geq 3.0$, and younger non-college educated women were concerned about power lines. No item was rated as risky to self by any group.

**Synthetic Chemicals** – Nearly all the items in this category except “Hair Products” were considered risky to others. Older college educated women also said that “Cleaning Chemicals” were risky. “Food additives” were thought to be
risky to oneself by women all college-educated women and by non-college-educated women under the age of 50. Additionally, college-educated women over 50 and non-college-educated women under 50 said that “Chemicals in the Water” posed risks to self.

**Lifestyle** – All the women agreed that “Diet” and “Using Tobacco Products” were risky to others. Younger women also considered “Caffeine” risky, younger college educated women rated “Alcohol” risky, and older college-educated women said that “Lack of Exercise” posed risks to others. The only items thought to pose risks to self were “Diet” for college-educated women under 50 and “Using Tobacco Products” for younger non-college educated women.

**Stress** – All women rated “Stress” >= 3.0 and college-educated women of both age levels added “Bottling-up Feelings.” College-educated women under the age of 50 included “Negative Thinking” as a risky item as well. No group rated any items >=3.0 in terms of risks to self.

**Biomedical Interventions** – All the women agreed that “X-rays,” “Birth Control Pills,” and “Breast Implants” are risky for breast cancer development. Older women of both education levels said that “Hormone Replacement Therapy” was risky to others, college-educated women of both age levels feared “Medications,” and older non-college-educated women said that “Surgery” and “ Abortions” were risky to others. Only college-educated women over 50 said that one item, “Mammograms,” posed risks to themselves.

**Spiritual** – Only younger college-educated women under 50 rated “God’s Will” >=3.0, but, regarding risk to self, only younger non-college educated
women rated this item as risky. No other items were considered by any group to be risky to either others or self.

Social – No items in this category were rated >=3.0 by any age/educated group as risky to others or to self.

OVERALL PERSONAL RISK ASSESSMENT

Table 7.25 (Appendix D) lists the variation in the women's overall perceived personal risk status by age and education groups.

Only 14 women in the sample of 40 perceive themselves to be unequivocally at risk of developing breast cancer. Ten of these women are under the age of 50 (71%), leaving only four women (29%) in the older age group (which Biomedicine considers higher risk) perceiving themselves unequivocally at risk. This lack of perceived risk is most striking in the college-educated women over the age of 50. Of the ten women in this age and education category, only one considers herself at risk at all of developing breast cancer. Furthermore, only three non-college educated women over the age of 50 perceive themselves to be at risk. Conversely, women under the age of 50 are those most likely to be concerned about themselves. Though the concern expressed in this study may be for the future rather than the present, younger women still consider themselves more likely to develop breast cancer at some point in their lives than older women.

Of the 14 women who consider themselves to be at risk, six hold a Worldly model of breast cancer etiology and eight hold a Divine model. Of the 21 women who perceive themselves to be not at risk, 12 hold a Worldly model
and nine hold a Divine model. The remaining five women are ambivalent about their personal risk status. Of these women, four hold a Worldly model and one holds a Divine model. From these data, it appears that there is no difference in personal overall risk perception among holders of the major models.

SUMMARY

This analysis by age and education has revealed some patterned differences in the ideas held by the women according to age and education. The next chapters elaborate the different groups of general models and include a profile of one woman who holds each general model.
CHAPTER VIII
WORLDMY CAUSATION

GROUP ONE - THE FOLK MODEL

For each of the six model groups identified in the above analysis, I will briefly describe the group members' life experiences and current circumstances, and then present their models of breast cancer and their ideas about risks to themselves in this and subsequent chapters. As noted previously, model groups are differentiated from each other by weighted items and predominating ideas.

The data is organized by several elements, many of which derive from Kleinman's explanatory models: 1) Characteristics of cancer or breast cancer; 2) Pathophysiology, including cancer/breast cancer's imagined appearance and ideas about metastasis; 3) Course; 4) Etiology, including perceived causal agents, the mechanisms through which these agents work (cf. Csordas 1989), and the personal danger attributed to these agents; and, 5) Overall perceptions of personal risk.

The etiology discussion is organized by the 12 categories of causal items. For each category of items, I have noted the number or percentage of informants who endorsed specific items, that is, the number or percentage who rated the item a "3" or above on the Likert-like scale indicating some degree of agreement that the item is causally related to breast cancer. Generally, I have discussed only items that received endorsement from at least 50% of the women in each group. Other items are discussed if I am contrasting the ideas of different groups, if ideas about why an item is not considered risky for breast cancer are...
noteworthy, or if an informant has a particularly interesting idea or has expressed an idea not previously introduced. I also include whether women in the group perceived any personal risk from the items in each category.

THE FOLK GROUP

The women in the Folk group drew particularly heavily from the folk sector to construct their models of cancer and breast cancer, and they tended to interpret their worlds, and thus cancer and breast cancer, from a fundamentalist Protestant perspective (cf. Mathews, Lannin, and Mitchell 1994). Biomedical and popular ideas and biomedical language found in the popular media were generally incorporated into or superimposed onto this basic folk model (e.g., Flaskerud and Rush 1989). Additionally, several aspects of their thinking were similar to the understandings of cancer found by Csordas among the Navajo (1989). The following discussion draws heavily on the work of the ethnographers of this folk tradition cited in Chapter II, Snow (e.g., 1993), Mathews, Lannin, and Mitchell (1994), Mathews (1994), Gregg and Curry (1994), and Wardlow and Curry (1996).

Description of the Informants

Table 8.1 (Appendix E) displays some of the demographic and experiential characteristics of the members of the Folk group.

As Table 8.1 shows, most of the women in this group are over the age of 50 (ten of 11 women); five have college degrees and six do not; all 11 belong to Protestant churches; and, nine of the women claim some Native American ancestry in addition to African ancestry.
Of the five non-college educated women, one, Rachel, is a retired nurse. The others work in various lower-paying positions. Joanne is a domestic engineer (her description) and cleans for a number of Euro-American women. Margaret is a retired child care worker and cook, while Veronica is a teacher's aide, and Annette works in a child care center. Of the college educated women, Vernita, Sonia, and Winnie are (or are retired) teachers, and Thelma and Verlene are (or are retired) social workers.

Rachel, Winnie, Veronica, and Rondelle were born and raised in the South and moved to the Cleveland area as adults, each in search of better employment. Sonia and Vernita grew up in the city of Cleveland, and "moved up" to integrated, inner-ring suburbs as their economic positions and civil rights advancements allowed. (See Chapter IV for a discussion of the residential patterns of Blacks in Cuyahoga County.) Annette lives in a largely Black public housing estate in the city; Margaret, Joanne, Veronica, and Rondelle live in primarily Black, working class neighborhoods in inner-ring Cleveland suburbs. Rachel and her husband live in a split-level house in an outer-ring middle-class suburb that is just beginning to include African-American residents.

The women's marital and reproductive experiences are somewhat different from each other. Sonia, Vernita, Joanne, Rondelle, Thelma, Winnie, and Rachel are currently married, Joanne and Rachel for the second time. Verlene never married, Veronica is widowed, Margaret has been widowed and was separated at the time of the interviews, and Annette has been both divorced and widowed. Margaret, Annette, and Veronica currently have male...
companions, though none lives with him. Annette, Sonia, Vernita, Joanne, Thelma, Veronica, Winnie, and Rondelle all have living children, but Rachel, Verlene, and Margaret have not borne children.

In addition to the group members' age similarity, all have active private and public religious lives. The Protestant church and faith are their foundations. They prayed, studied the Christian Bible, read books that helped them understand this Bible, participated in church-related activities (if physically able), and worked to "live their faith." For example, Joanne, a Jehovah's Witness, related nearly everything she said to quotations from or interpretations of her Bible.

Though many of the women have had health problems, Rachel is unique in the group (and in the overall sample) because she had cervical cancer some years ago. All the women in this group have known African-American and other women who have had, and have succumbed to, breast cancer. Both Vernita and Rachel have sisters who suffered from the disease; Vernita's sister died as a result of breast cancer and Rachel's sister is still "fighting" it, in Rachel's words.

**The Characteristics of Cancer/Breast Cancer**

Women in this group associated a number of ideas with cancer and breast cancer. Cancer, in general, and breast cancer, in particular, were "devastating" and "deadly." The life changes that they wrought in women's bodies and lives inspired fear in the members of this group. To these women, cancer was an "unnatural thing" inside the body. This idea reflects the folk theme seen in Snow's work that the interior of the body was pure or sacred, but
that it could be penetrated and occupied by impure or profane entities that could affect a person’s body, mind, or soul.

Additionally, breast cancer has a particularly hidden, secretive, stigmatized quality to it. According to the women, it was not talked about at all until recently, after celebrities revealed their disease and after prevention efforts increased among African-American women. Women in this group maintained that the incidence of all cancer, and breast cancer in particular had increased during their lifetimes. For example, Joanne had never heard the word, “cancer” mentioned while growing up, and now, she said, “Girl, there’s just so much!”

This idea was drawn from the popular sector, which, as we saw in Chapter II, has made breast cancer a cause célèbre in recent years. All of the women in this group thought of cancer as one disease, which behaves the same and is essentially the same no matter where it occurs in the body.

Pathophysiology

To women in this group, a malignant tumor begins with the “breakdown” of the body. Specific body parts such as cells or tissues break down, either materially or functionally, or inherent weaknesses “turn” to breast cancer. The immune system breaks down functionally and cannot fight off the agents or impurities that cause body breakdown or that turn to cancer themselves.

Once cancer/breast cancer begins, several pathological processes were suggested. To six of the women, cancer/breast cancer works through an infectious or decomposing process; cancer/breast cancer “fests and rots”. These six women labeled cancer, including breast cancer, a “sore that doesn’t
heal," the descriptive phrase used by Csordas' (1989) Native American informants. Several mentioned that they had smelled cancer in others, and the experience of this odor supported their belief that cancer is, or is like, an infection or decomposed material.

Additionally, cancer "eats on the body," or "on whatever body part it attaches to," according to five of the women. To four of the women, cancer/breast cancer "breaks down," "takes over," and "destroys" the body. A final notion about the pathophysiology of cancer follows logically from the idea that cancer eats: like other living entities, cancer grows, but this growth is "unnatural," and abnormal. To Rachel, the only biomedical professional in this group, cancer/breast cancer "reproduces" abnormally, rather than "growing" or "eating."

**Appearance** - To women for whom cancer was a "sore that doesn't heal," cancer/breast cancer looked like an infected, festering sore whose color was usually reddish-brown or pus-colored. Women also used "predator" metaphors to describe cancer's appearance and action. For example, Rachel used the image of Pac-Man, a computer game figure that gobbles whatever is in its path, and Thelma thought of an ameba that sucks up whatever it is on. Other images were of something "rotting" such as a piece of meat, a sponge with lots of holes in it, the "pimples" that come from contact with poison ivy, and cigarette smoke that slowly but inexorably fills a room.

**Metastasis** - All the informants in this group were familiar with the idea that cancer and breast cancer could "spread" to other parts of the body. The
women had three main ideas about how this spread occurred: through proximity, through the "flow" of bodily fluids, and through "openness" to the air. According to the proximity theory, once cancer has eaten everything in a certain location, it moves to the next thing in its path and keeps on eating. In Joanne's words, "It sneaks on over to the thing next to it," and to Annette, "It spreads like germs (itty bitty insects) [that] travel around the body."

Several women also invoked an ethnophysiological notion that fluids flow through the body in their understanding of "metastasis." To them, body fluids could carry "little pieces" of cancer to other parts of the body. For example, according to Annette, festering sores (such as cancer) always have "drainage" that could flow into other fluid channels and move with them. Recall that Snow also found her informants had this basic conception of the body: it is a container with passages in which substances move from top to bottom.

Finally, half the women mentioned a theory found by other researchers (e.g., Mathews, Lannin, and Mitchell): opening cancer up to the air, as in surgery, causes it to spread. Mathews, Lannin, and Mitchell see this theory as an extension of the plant metaphor for cancer used by their informants. According to this interpretation, air has a beneficial effect on plants and other living things, including cancer, which is thought to be alive. In this group, only Rondelle used a plant metaphor to describe cancer's growing process; animal metaphors were more common. But nine of the women agreed that air "hitting it" (i.e., coming into contact with it) caused cancer that is on the inside of the body to spread. This may occur because the cancer, like other living things, needs air...
to breathe, and it finally gets enough air to thrive when it is "exposed" to the air during surgery. But air, while lifegiving, has dangerous qualities as well: in particular, it is filled with germs, or other undefined disease-causing agents or conditions.

**Course**

All the women associated cancer and breast cancer with death. Cancer spreads through the whole body and eventually kills. Only one woman, Joanne, said that cancer could be "cured," defined by the ethnographer as "eliminated from the body," and she, knowing that I considered my husband cured of cancer, may have not wanted to "upset" me with a contrary opinion. To most members of this group, cancer/breast cancer could "go away," and some people who have it could "last a long time," however, all but Joanne were confident that it would "come back eventually." Their statements suggest that the women think at least some cancer remains in the body without making known, rather than leaving it the body entirely during any period of remission.

The women listed various effects of breast cancer or of its treatment. In fact, treatments seemed to be considered effects of breast cancer rather than measures to cure cancer or relieve suffering. All the women mentioned breast loss as one effect of breast cancer, and only one noted that surgery, though dangerous, might help. Radiation burned and chemotherapy fatigued a person and caused weight loss, darkening of the skin, and hair loss. Additional effects included a loss of self in terms of one's normal behaviors, feelings, and relationships. For example, although all castigated men who would do such a
thing, all noted that “your man could leave,” if a woman had a mastectomy, because a woman without a breast is “less of a woman.”

The women had various ideas about the what affects the course of breast cancer that highlight breast cancer as a woman’s disease. Some reasons were rooted in the ethnic and gender relations of U.S. society. For example, several said that Black women were more likely to die from breast cancer because they were less likely to get proper medical care, and seven women said that if men got breast cancer, there would be a “cure.” Sonia, for one, understood the lack of a cure as deriving from racism and sexism. According to her, “If White men got it, there would be a cure.”

Learning from the popular discourse on cancer/breast cancer and from a basic Protestant orientation to misfortune, the proper attitude to adopt when one is suffering from cancer is to “fight,” as evidenced by Rachel’s description of her sister’s situation noted above. Personal situations and attitudes can affect the course of the disease. Having faith, trusting in God, “tak[ing] care of your business,” social support, and thinking “positively,” while not effecting a cure, can ameliorate the suffering one endures, according to these women. In Winnie’s words, a woman should focus on her,

self-esteem, focus on [her] whole being and her mind . . . . the positive part of living . . . . You know there’s a higher power. You don’t put your faith in man, you have to believe in something. That’s what gives you courage.
Etiology

The women in the Folk group again drew heavily from folk knowledge in constructing their knowledge of what caused breast cancer. Biomedical and popular ideas were generally incorporated into their extant folk model.

Snow found that diseases were classified according to a "natural" and "unnatural" distinction in the African-American folk tradition. Natural diseases occur because of "natural" causes such as "exposure to" cold or not eating properly. Unnatural diseases are the work of evil influences such as conjuring, "working a mojo" or putting a spell on someone by using roots to make them sick. In contrast, women in this study used the term, "unnatural" to describe synthetic or man-made phenomena, and "natural" to refer to phenomena that occur in nature.

Characteristics or Conditions of the Body

All the women in the Folk group agreed that something about an individual's body was "right" for cancer to develop in that individual. This rightness implied to some that cancer was in the body already, ready to be "triggered" or to appear, and to others, it meant that the "stage was set" for some cancer-causing agent(s) to enter from the outside and cause cancer to develop.

Family history - All of the women maintained that family history contributed to this rightness. Recalling Gaines' (1992a) notion of a referential self in which the self incorporates living and dead relations, women conceptualized the body as a continuation of one's ancestors who passed down actual parts of themselves in the genes. As Joanne said, "My body is my
people. This idea of a corporate, jointly owned body that threaded through the generations was evident in several women's use of the term, "cancer families." Cancer seemed to "run" in certain families. A few said that genes and chromosomes are "passed down" from parents to children, but no one explicitly mentioned BRCA1 or BRCA2, recently announced discoveries, as the specific genes involved in cancer development.

Genetic inheritance manifested itself in the women's thinking in two ways. First, genetics influenced the general strength or "constitution" of the body, and to eight women, this could also be affected by maternal nutrition during pregnancy. The whole makeup of the body and its functioning made one either "susceptible" to cancer/breast cancer or not. In Annette's words,

> There is something that makes you, I don't like the word 'candidate' for that, but more susceptible that that might happen to you. Your own body, something to do with the inside mechanism of your body, your cells, your whole, in your body... your veins, the whole functioning of your particular body.

Though one's basic constitution was a given, a good constitution could "break down" and a poor constitution could break down even further from a number of contributory factors as we shall see below.

Second, specific "weaknesses" such as weak body parts or weak body processes could be inherited. If a body part was weak, cancer could develop there. If a process was weak, it could contribute to a malfunctioning body that was susceptible to breast cancer.

Immune System - All the women in this group said that one's immune system is an important determinant of whether one develops cancer. In this
model type, the immune system functioned by eliminating impurities that remain intact from the body rather than by attacking and metabolically breaking them down, as in a biomedical or popular conception of the immune system (Martin 1994). This idea fits logically into an ethnophysiological understanding of the flow of bodily fluids and a conception of the body as a plumbing system noted by Snow. (This idea, a holdover from Greek medicine, is also seen in Arabic-Islamic culture (e.g., Delvecchio Good 1980). In the women’s thinking, maintaining the flow of fluids (for example, by drinking water) is important to “purify” the body by eliminating impurities, usually referred to as “dirt," "germs," or "poisons." If these impurities are not cleansed from the body, they may "get stuck," and "rot" and "turn" into cancer. Joanne said, “The body was made to protect itself. It manufactures everything that it needs. . . when you overload it [with junk], you can catch anything. . . . You need to clean yourself out from time to time.” An “open” body in this sense is a well-functioning body, indicating the dual meaning of openness. On the one hand, open means unclogged so that impurities can flow out. On the other hand, being open during surgery was dangerous, as noted above, because impurities could get inside the body.

**Imbalance in the body** — Imbalance was an important health concept to nine of the women, also reflecting ideas found by Snow. The predominant meaning in this context was "chemical imbalance." As Winnie said, "I think sometimes our body might produce more of a chemical — we all produce some type of interaction, chemicals, but some of us may produce a little bit more of
one thing, too much of one thing or another in our body that causes an imbalance." Such a body might be "right" for breast cancer to develop.

**Clogged up bodies** - Six of the 11 women specifically agreed that a clogged-up body was risky for breast cancer. As Rondelle said, "You know when the waste is not released it's gonna cause poison to your system anyway."

**Poor health** - All the women agreed that women who were in generally poor health were in danger of developing breast cancer. Poor health meant that the body was broken down and thus, many ailments were possible.

**Female Bodies** - To these women, breasts and femaleness are intimately connected, and they, in turn, are intimately connected to breast cancer. Breasts are considered reproductive organs, and reproductive organs in general are especially vulnerable to cancer in this model. Additionally, the placement and composition of breasts increased this vulnerability since they could impede the elimination of impurities. Several informants remarked that breasts contain many fat cells, and that "fat isn't healthy," a theme that echoes biomedical and popular ideas in the U.S. Fat content also makes the breasts especially attractive to a hungry predator that "eats," illustrating the ambivalence towards fat prevalent in U.S. society: fat may not be healthy, but it certainly tastes good! Female breasts were also thought to be more "sensitive" than other body parts, and were less able to withstand injuries (See below).

The danger of "changes" in the body is another notion that intersects well with a body breakdown theory of carcinogenesis. Changes due to aging are particularly salient to this primarily older group of women. Breasts themselves
break down, as evidenced by their tendency to sag with age. As Annette said of her sagging breasts, "They're flippin', they're floppin', they're flappin'!" Breaking down in this sense may indicate functional breakdown, and thus vulnerability to breast cancer, as well. Additionally, menopause in particular signified potentially dangerous changes that could result in a body that was "out of balance," a state that could contribute to breast cancer.

Female hormones were only thought to be dangerous if they were out of balance, due to some other changes or assaults on the body, or if they were interfered with, such as by taking birth control pills or hormone replacement therapy (See below). Natural female hormones, left to the body's own natural rhythms and homeostatic mechanisms, posed no danger, contrary to the biomedical theory that lifetime exposure to estrogen (and progesterone) was a risk factor for breast cancer.

Weight - Eight women thought that being too heavy was generally unhealthy, a professional, popular, and folk notion that applied to breast cancer as well.17

African-American bodies - To these women, all human bodies are the "same under the skin," in Sonia's words. They could see no bodily reason that incidence of breast cancer should differ among ethnic groups. They did, however, note that society-wide inequities could cause disparities in incidence and mortality (See below).

Risks to Self - Several items in this category were assessed by at least half of the women in the Folk group to increase their own risks of developing breast
cancer. These items include a poor immune system (61.6%), imbalance in the body (81.8%), female hormones (72.7%), weight (54.5%), and aging (54.5%). Risk attributed to these items derived from the women's experiences with illness in the past or present, particularly female troubles caused by hormonal imbalance, and by their culturally derived perceptions of themselves as overweight and aging.

Only Veronica and Sonia said their family history placed them personally at risk. Interestingly, neither had a close relative who had had breast cancer. Sonia and Veronica's perceived risk derived from their knowledge of family members who had had other types of cancer, and they generalized this risk to breast cancer, since they were afraid they came from "cancer families," again, illustrating the notion of corporate bodies.

**Injuries**

Injuries to the breasts were one of riskiest hazards for breast cancer to the women of the Folk group. All the women thought that injuries, including bumps and bruises to the breast, contributed to breast cancer. Half the women also thought that tight clothes, particularly bras, were risky for breast cancer. If an injury occurred, tissue on the inside of the body may be damaged. Because it was on the inside, the bruise might not heal properly since it could not be treated and healing air and light could not reach it (again illustrating the contradictory meanings of air). It could then become a sore that does not heal, and could turn into cancer. As Margaret said, "If I bump myself, I might rub something [e.g., Betadine] on it from the outside . . . then it stops the outside, but that doesn't mean that it's not inside."
Risks to Self - Over half of the women (54.5%) thought that their own painful, upsetting experiences with breast bumps, bruises, or injuries increased their own risk of developing breast cancer.

Germs

All the women in this group believed that exposure to germs contributed to cancer. Germs were imagined as bugs that contaminate the air, invade the body, and crawl through it, destroying cells, tissues, and organs. This conception of germs duplicates the women’s thinking about cancer’s pathophysiology, so it is no wonder that sometimes cancer itself was referred to as a germ.

Risks to Self - Over half the women (54.5%) agreed that their own exposure to germs, which were seen as ubiquitous, increased their personal risk, though all tried to be clean so as to avoid them and their ill effects.

Sex

All the women in this group except Margaret held that prostitutes and others who engaged in sex with multiple partners, and those who practiced anal or oral sex, risked breast cancer through infection by germs. The necessary corollary of this theory is that the breasts are connected to the genitalia. Such activity opened the body up to contamination and invoked the image of an open wound, a sore that did not heal. “Normal” sexual activity was considered a good thing, and lack of sex was at least uncomfortable, if not outright dangerous.

Snow’s notion of moderation discussed in Chapter IV is particularly applicable in
this case; both “too much” and “not enough” sex is unhealthy, in these women’s view.

Margaret joined the others in the idea that “rough” usage of the breasts or biting on them by men during sexual activity, either forced or consensual, exposed the women to the risk of breast injury that could turn to breast cancer. In Annette’s words, “If he [male sexual partner] is abusive, like teethmarks . . . [then it] leads to the breakdown of the breasts and make it more susceptible to whatever.”

Consistent with their attitude to the dangers of sex, nine women considered sexually transmitted diseases risky for breast cancer because dangerous germs were circulating throughout the body. None, however, connected HIV and its destruction of the immune system with cancer.

**Risks to Self** - No sexual items were rated above a “3” by at least half of the women in terms of risk to self. Though Joanne professed not to believe that God would punish with breast cancer, some sexual items caused anxiety for her. She was concerned about her current cohabitation with her fiancé since this was immoral in the eyes of her church, and she was also worried about her sexual behavior when she was younger.

Winnie, who at the time of the interviews was seriously considering separation from her husband and who was very angry at him, his extramarital sexual behavior, his sexual use of her body, and her sexual dissatisfaction, worried moderately about “playing with the breasts during sexual activity” and “not enough sex.” She also was suspicious of her own parents’ sexual behavior, and said that
“parents’ messing around” might increase her own risk through its effect on her developing body while in the womb.

Reproduction

Breastfeeding - Not breastfeeding was risky according to ten of the eleven women because milk could “clog” up the milk ducts and stay in the system when it should be eliminated. Only Margaret, who had not borne a child who lived longer than a very short time, said that the production of milk during breastfeeding also exposed women to this danger.

Childbearing - Not having children was seen as not allowing a natural process to occur, and thus posed some generalized danger to women, according to six of the women. Reproduction and breast cancer were associated through the injury theory of breast cancer causation, rather than through the biomedical theory of estrogen exposure. For example, ten women maintained that bearing children too early, referring to teen pregnancy, was risky, since teens’ bodies are not “developed yet,” seven said having too many children, six said having children too late (first child after the age of 30), and ten said having children too close together all could overly strain the body. This strain could lead to the breakdown that would eventually turn into cancer.

Risks to Self - No reproductive items were rated by at least half of the members of the Folk group as increasing their personal risk. Several women were moderately concerned because they had not had children or had not breastfed, and Thelma was anxious because she had breastfed, but no one but Veronica thought she had had too many children, had them too early, or had them too late.
Veronica had two sons 18 months apart and the oldest was mentally retarded. According to her, this strain may have increased her chances of developing breast cancer, but again, overall, she did not feel at risk.

**Natural Energy Forces**

**Sunlight** - All the women except Verlene maintained that exposure to too much sunlight could contribute to breast cancer if the breasts were directly exposed to the sun. Several noted the irony of Euro-American women in this "racist" country seeking tanned, brown skin, but they also maintained that younger Black women were also exposing their bodies to the sun in bikini bathing suits. Consistent with their attitudes to the dangers of sexual activity, they found some cancer-related danger in this practice. They did not differentiate between skin cancer on the breast and the biomedically defined breast cancer that originates within breast tissue, but rather applied their notion of the dangers of sunlight indiscriminately in this instance.

**Radiation** - All but Verlene associated radiation and breast cancer. The women all knew that victims of nuclear explosions had developed cancer, and that it was a powerful force that could cause many changes. Such a force thus had the power to effect malignant changes in the body as well, in their opinion.

**Microwaves** - Eight of the women also thought that microwaves used in microwave ovens were dangerous, and that the danger in microwave ovens lay in their "radiation." These ovens were also perceived as dangerous because they cooked food "too fast;" this suggested they were unnatural in the synthetic sense and were, thus, dangerous.
Electrical power lines and appliances - Five of the eleven women connected electrical power lines and breast cancer. Electricity and radiation were considered similar, if not the same; and whether the same or different, each was powerful enough to cause many things to happen outside and within bodies. Certain appliances such as electric blankets and cellular phones were also considered dangerous.

Lightning - Only Vernita and Veronica agreed that lightning might be related to breast cancer after I explained the Navajo beliefs found by Csordas (1989) upon their request for an explanation. They attributed the danger to electricity, a powerful force, as we have seen.

Risks to Self - Over half the women (72.7%) were moderately concerned about their own exposure to radiation, generally from x-rays, and over half (54.5%) worried about their exposure to damaging forces from household appliances. For example, Sonia said, "I think there's too much radiation in television, microwaves, and I think electricity in general. . . . I have a thing about televisions. . . . I think if I get breast cancer it's gonna be in the left breast," the side that faces the TV when she rolls up her hair in the morning.

Synthetic Chemicals

All of the women in the Folk group were concerned with "synthetic" or, in gendered terms, "manmade" technologies. This category of risks is most closely linked to anti-technological ideas extant in the popular sector (and sometimes in the biomedical sector), ideas that fit into already operating folk notions.
Hair chemicals - Four women found chemicals used on hair dangerous because they could "seep" into and "poison the "system."

Pesticides - Ten of 11 women agreed that pesticides, meaning chemicals used to exterminate animal or plant pests, were causally related to breast cancer. Evidence for their fear came from their experiences of their own bodily reactions to such products. For example, in talking about having a rental property treated for ants, Vernita said, "I thought I was going to die . . . . I just thought I was breathing in something terrible." Winnie lived in a meticulous Black suburban area. She said, "Everybody around here sprays --you don't see a dandelion. . . . And that Off (insect repellant) stuff that now they're seeing people are dying from."

Food additives - All the women were particularly concerned about the food supply. All cited substances given to animals, colorings, and preservatives added to food as risky. A number talked about their anxiety about chemicals added to animal feed or fertilizers that made the feed animals and plant foods grow "too big, too fast." Several mentioned their concern that young girls were developing secondary sex characteristics much earlier than in the past, and they connected this early development to the chemicals in the food. None in this group claimed that African-Americans were particularly vulnerable to such contamination, as did some women who held other models.

Chemicals in the general environment - Chemicals in the air, drinking water, and general environment were also of concern to all of the women. Regardless of their educational status, all of these women had spent much time
cleaning their own or others' homes, so nine women also expressed fear about the chemicals in cleaning supplies, reflecting their experiences of inhaling strong odors or fumes while cleaning.

**Risks to Self** - The women in the Folk group rated several items in the "Synthetic Chemicals" category as increasing their personal risk including pesticides (81.8%), food additives (81.8%), chemicals in the environment (612.6%), chemicals in the water (612.6%), and chemicals in cleaning supplies (81.8%). Margaret felt particularly at risk from cleaning supplies. She once, "stupidly" in her opinion, mixed ammonia and chlorine bleach to tackle a particularly difficult job, and claimed to have lost her singing voice from inhaling the fumes.

**Lifestyle**

**Diet** - Consistent with Snow's themes of action and responsibility, the informants in this group felt that women needed to protect themselves from injury and practice good health habits. Watching one's diet was particularly important. The primary dietary danger lay in eating fat, which is consistent with biomedical and popular themes in the U.S. ethnomedical system. Meat, particularly red meat, which was noted by Snow as considered to be a rich, indulgent food in folk culture, is the link between the popular, biomedical, and folk sectors since it was named the prime source of fat, and thus of danger, in the diet.

**Caffeine** - Seven women said that caffeine was causally related to breast cancer because they had all heard that caffeine promotes lumps in the breast, and lumps or knots could turn to cancer, in these women's opinions.
Tobacco products - All the women agreed that using tobacco products, (primarily smoking cigarettes) was risky for breast cancer. The location of the breasts and the conception of the body as a container in which substances flow from top to bottom were important in the women's understanding of the ill effects of smoking. Smoke, considered a poison, entered the body though the mouth and nose and moved downward. It could, however, remain trapped in the breasts where it would stay and do its damage.

Alcohol - Alcohol was a powerful “poison” as evidenced by its effects on the human body and behavior, and could cause cancer, breast cancer, and many other ailments by virtue of this power, according to seven of the women.

Exercise - Eight of the ten women also thought that exercise was generally beneficial and they linked this benefit to cancer prevention.

Risks to Self - In the “Lifestyle” category, the women of the Folk group were only personally concerned about their diets (54.5%) and their exposure to secondhand smoke (64.6%).

Stress

Ten of the women associated stress with breast cancer, if it was not reduced or handled properly. Informants in the sample as a whole generally conceptualized stress in two ways: as physical stress or strain on the body itself or as emotional stress. Physical stress involved physical labor of work and the harried “running” involved in providing for one’s own and one’s loved ones’ needs. Emotional stress meant Snow’s worry, and consisted of anxiety and upset about one’s present and future, one’s loved ones, conflictual relationships,
and the "hassles" of getting everything done that had to be done. Such stress "diminishes the body's natural ability to fight," in Sonia's words.

**Bottling-up feelings** - Additionally, to eight of the women, stress was considered to be an impurity that must be cleansed from the body by talking about one's stress, by relaxing oneself, or by turning things over to God. As Margaret said, "Keeping stuff in is not good for anybody."

**Negative thinking** - Six of the women equated negative thinking with stress and connected it to breast cancer. Verlene called negative thinking "constant stress," and, to many of the women, in this sample, stress weakened or broke down the body or diminished its ability to "fight off" disease-causing agents. They repeated a strong moral proscription against thinking negatively; one was supposed to praise God for blessings rather than complain about difficulties.

**Not having enough faith** - Only five of the 11 women thought that not having enough faith was associated with breast cancer. These women connected it to faith's power to reduce anxiety. If one trusted in God, one would find a way no matter what the difficulties, and if the difficulties were irremediable, God would send comfort so that they could be borne.

**Working too hard** - Seven women linked the physical and emotional stress of "working too hard" with breast cancer. For example, to Sonia, a busy working mother who got very little help from her husband, working too hard led to emotional stress. She said, "That's related to stress... It's how we handle..."
those stresses. I've been sitting in my chair in the morning — meditate — just get
into my center again, get ready for the day."

**Risks to Self** - In the “Stress” category, women rated only working too hard
(54.5%) as personally risky, and most of the women who considered it personally
risky rated it at “4.” Sonia, Winnie, and Thelma, all of whom had very difficult
marriages, Rondelle, who had many caregiving responsibilities, and Annette, who
had a frenetic work schedule, worried about the toll their personal stresses might
exact. From my perspective, Rondelle had the most stressful life of anyone in the
sample, since she took care of her bed-ridden mother and her daughter’s diabetic
one-year old plus her other three-year old grandchild in her tiny working-class
home. In addition, she had a son with drug problems and a very domineering
husband whom she regretted marrying. But she only moderately worried about
her life stresses and also expressed some guilt over feeling “stressed out” at all,
since her faith should be strong enough to make her “load” bearable. Others in
this group maintained that they were able to “deal with” their anxiety and the
demands placed on them, again, often citing their religious beliefs as relieving
them of worries.

**Biomedical Interventions**

We have already seen that most women in this group think that surgery
“opens people up to the air,” a “natural” substance that may cause cancer to
spread. Other biomedical interventions were dangerous in an “unnatural,” that
is, synthetic, sense because they used synthetic substances or equipment or
because they interfered with natural processes. Talking about biomedical
interventions with the women in this group revealed a basic distrust of doctors and unhappiness with at least some of the medical care they have received.

**X-rays and mammograms** - All the women strongly agreed that "too many" x-rays could cause breast cancer, though they did not specify the meaning of "too many." Nine women thought that mammograms themselves were dangerous, usually because they "mashed" the breast, another example of the injury theory of breast cancer etiology.

**Breast implants, hormone replacement therapy, and birth control pills** - Breast implants were maintained to be extremely risky by all the women because of the leakage of the silicone solution into the body they had heard about in the popular media. None of the women in this group understood how anyone could be so vain and so unhappy with her God-given body to expose herself to this risk.

The women all considered other attempts to interfere with nature such as birth control pills and hormone replacement therapy, risky, as well. Regarding birth control pills, Joanne expressed theories of the necessity of cleansing the body and not interfering in natural processes. She said, "Them birth control pills are holding things back that should be let out. Look, your body's got a natural function. When you do something to stop it, whoa!"

**Medications** - Taking other medications, or taking "too many" medications also posed dangers to nine of the women. This idea is based on two folk notions found by Snow: the connected body and the dangers inherent in combining certain foods, ideas that were extended to medications. Since the whole body is
connected, medications that affect one part of the body necessarily affect all other parts, and inevitably have unintended side effects. Another problem with taking medications was their interaction with each other, as in unhealthy food combinations. These interactions are not well known and are thus suspicious. As Joanne said, "People that take all these medications, I think they really get in your body and start a war."

**Abortions** - To eight of the women in the Folk group, abortion was also an unnatural interference in a natural process and was morally suspect; hence, they were risky.

**Risks to Self** - The women of the Folk group rated their exposure to x-rays (72.7%) and mammograms (61.6%) as increasing their personal chances of developing breast cancer. They had either not been exposed to other items in the "Biomedical Interventions" category (for example, no one had breast implants) or had minimized their own exposures, in their opinions. Only Sonia attributed any breast cancer risk to her abortion; she worried about being punished in a "female" way for this deeply regretted action.

**Spiritual**

**God's Will or Punishment** - All the women in this group agreed that a masculine deity ruled the universe. All but Margaret and Thelma saw him as a "loving" deity who would not deliberately will breast cancer for anyone. As stated earlier, neither Margaret nor Thelma made any statements that indicated they thought that God's will was the ultimate cause of breast cancer, but, in some instances only, it might be His will that a woman develop the disease.
Nor does this God punish anyone with breast cancer, according to nine of these women. Verlene and Rondelle, however, agreed moderately that God might punish some women at some times. Both said this would occur through natural mechanisms. For example, Verlene said, “Appetite was the first sin and you shouldn’t overindulge in anything.” She expressed the moral aspects of cancer development simply: “From a Biblical standpoint we have been given certain guidelines to go by. If you do this, if you follow them, you find that your life is much smoother.” The corollary applies, if you do not follow God’s guidelines, cancer/breast cancer is one possible result.

**Luck** - No one thought that luck played any etiologic role in breast cancer development.

**Devil** - The women in this group believed that if God or good existed, then the opposite, a devil or evil, must also exist, either as a spirit that can enter a human body, reflecting a conception of the person as able to be inhabited by others, or as an embodied being itself. For example, Rachel said,

> I believe he’s a force... I try to keep him out of my life as much as possible. I don’t think of the devil as being a human being. I think of him as a spirit and I think it can only dwell in someone. It’s not something out there that can get you or grab you.

The devil is one of several supernatural beings that can enter the sacred space within the body, and affect the physical, mental, or spiritual health of a person. God, or his spirit manifestation known as the “Holy Spirit” could also be present. The interior of the body became a site of struggle between the forces of good and the forces of evil, thus internalizing the spiritual struggle found by Snow. If ascendant, the devil could become an indirect cause of cancer/breast cancer...
cancer since he could promote unhealthy behaviors that might lead to cancer, according to five of the women in this group.

**Working Roots** - Only Joanne, Annette, Margaret, and Rondelle (all over age 50) said that they believed the rootworkers so prominent in Snow’s work could cause cancer. The women who held this belief theorized that if a conjurer (a “demonized person,” a person with the devil inside him or her, in Joanne’s words) can get an agent into another’s system, it could “mess up their system” and lead to cancer. Thus, their concept of working roots actually was a “natural” one that functioned within their understandings of the body’s physiology.

Annette explained the idea that hair could be used to work a *mojo* (curse):

> ... it’s part of your body and it’s your own hair ... it still is connected in some way to you -- if you still alive -- and it may have an effect on you ... because you are still alive and your hair is alive. It’s not only hair, it’s other parts of your body, too.

She spoke of keeping a “mulatto” boyfriend’s hair in her Bible because it was so “pretty.”

> His hair in my Bible looked just like it did on his head. I know that it stayed live. It didn’t dry up, it didn’t get different, it was just like it were when it was on his head. ... If he’s alive, it’s live.

**Risks to Self** - No “Spiritual” item was considered to increase the personal risk by at least half of the women of the Folk group. Again, though Margaret and Thelma rated God’s will at “3,” they did not think that God’s will was the ultimate cause of breast cancer, only that God might have it in His plan for them. Verlene, Joanne, and Thelma were concerned about the devil’s role in their own lives, and said that the devil could induce them to practice unhealthy behaviors. Joanne also was the only woman to believe that someone could work a *mojo* on her that could
cause breast cancer to develop. Others, such as Margaret, Annette, and Rondelle, though they may have believed in this possibility for others, did not feel that anyone would have any reason to do this to them.

**Social**

Social interaction - No one in this group maintained that talking to others about breast cancer placed one at risk for developing the disease and only Rondelle said that cancer was contagious.

Societal factors - Most women in the group, however, did find social causes of breast cancer: consistent with a moral stance, most said that predominant U.S. social values were the ultimate cause of cancer and breast cancer. Several said that personal greediness, usually gendered as “man’s greed,” had become the norm, and the pursuit of money and things had led to despoliation of our earth.

Several linked breast cancer in African-American women to social inequities. Poor nutrition while growing up, poor access to health care, the particular stresses that accompany being Black in the U.S. such as racism and persistent economic anxiety, and particular demands on Black women to take care of everything and everyone all were thought to contribute to breast cancer if their cumulative effects broke down the body. Again, however, one was responsible for doing all one could to keep the body strong.

Risks to Self - Of the members of the Folk group, only Rondelle, who had cared for cancer patients, found that their talk about cancer or their exposure to others with cancer increased their own personal risk. Rondelle was very
committed to a viral etiological model, and her own powerful experiences of patients’ “sputums” and noxious odors that she attributed to viral infections she knew to be contagious had convinced her of their danger to her.

**Overall Personal Risk Perception**

In response to the open-ended questions about personal risk status, Margaret, Sonia, and Verlene considered themselves to be at risk. All cited their excess weight and large breasts as personal risk factors. Verlene added that she does not go to the doctor enough, meaning that if she went more often, breast cancer might be detected earlier. However, she, as did many women, confused primary and secondary prevention, and she implied that inadequate secondary preventive behaviors became a risk factor for developing breast cancer in the first place.

Winnie, Thelma, Annette, Veronica, Rachel, and Vernita did not consider themselves to be at risk, though all were over the age of 50, Rachel had already had cancer, and Vernita’s sister and mother had died of breast cancer. Rachel’s and Vernita’s reasoning was particularly interesting. Rachel thought that she “already had hers,” and that, though she might have a recurrence of cervical cancer, no other “type” of cancer threatened her. Vernita differentiated herself from her relatives because she had not had as much stress in her life and she was better able to tolerate the stress she had. In answer to these questions, the others found no reasons to think that they were at risk: they had no family history of the disease, they did not behave in the ways that placed women at risk, and they “took care” of their bodies.
Joanne and Rondelle were ambivalent about their risk status. For example, on the one hand, Joanne said there was no history of breast cancer in her family and that they were all “healthy.” On the other hand, she smoked, and she transferred her feelings about this habit (that also kept her from actually becoming a Jehovah’s Witness) to her risk perception. Rondelle did all she could to stay healthy, but she continued to worry about her exposure to cancer patients during her working years.

SUMMARY

For the Folk group, 40 items in ten categories had mean ratings above 3.0, indicating that the members of the group attached some sense of risk to the item. The only category in which no items were considered risky was the “Spiritual” category. The categories and items are: 1) Body - family history, poor immune system, maternal nutrition, imbalance in the body, poor health, female hormones, weight, and aging; 2) Injuries - injuries, bumps and bruises; 3) Germs - germs; 4) Sex - immoral sex, abnormal sex, rough sex, and STD’s; 5) Reproduction - not breastfeeding, having children too early, and having children too close; 6) Energy forces - sunlight, radiation, microwaves; 7) Synthetic chemicals - pesticides, food additives, chemicals in the environment, chemicals in the water, chemicals in cleaning supplies; 8) Lifestyle - diet, tobacco products, secondhand smoke, alcohol, lack of exercise; 9) Stress - stress, bottling-up feelings; and, 10) x-rays, mammograms, birth control pills, hormone replacement therapy, breast implants, medications, and abortions.
CHAPTER IX
WORLDLY CAUSATION
GROUP TWO – THE EDUCATED FOLK GROUP

Like other women who held a Worldly model, the women in Group Two maintained that biological principles, rather than spiritual agents, accounted for cancer development. They placed responsibility for health on women themselves as well as citing agents or conditions over which women had little control.

The ideas of these women also derived mainly from the folk sector, and from popular and professional ideas that, in turn, derive from the folk sector. Their ideas differed from those of Group One in that women in this group did not attribute risk to sexual or reproductive behaviors and the mechanisms of action were sometimes different. Additionally, they tended to use more sophisticated language than the women of Group One, particularly Sally, who is a dietitian, and Gina, who is a young college student. In short, these women's ideas are predominantly folk ideas modified by education.

In addition to using more biomedical terms, Sally disagreed with fellow members on several issues, usually due to her biomedical training, but her ideas mesh best with the women of this group. Bessie, the oldest member of this group at age 72, holds more ideas from the folk sector than the other members of the group, but her ideas differed from Group One women's on sexual behaviors, a major criterion for inclusion in this group.
Description of the Informants

Table 9.1 (Appendix E) displays some of the demographic and experiential characteristics of the members of the Educated Folk group.

As we see in Table 9.1, three of the four women in this group are over the age of 50, but one is a young college student. Three of the four are college-educated, and Gina, the college student, nearly has her bachelor's degree. Three of the four were raised in the North, and three of the four belong to middle-class Protestant denominations (African Methodist Episcopal and United Church of Christ). Gina has no religious affiliation, but is interested in exploring Native American spiritual beliefs. In addition to African-American ethnicity, Bessie and Gayle claim Native American heritage, Gayle also has European ancestry, and Gina considers herself a mélange of ethnicities. (She, however, volunteered to participate in the study in response to signs seeking African-American women.)

Three women were married at the time of the study, and Gina has not (yet) married. Bessie, Gayle, and Sally, the three older women, all have living children; Gina does not have any children. Sally is a dietitian and Bessie and Gayle have had careers in teaching and school administration.

Gina may seem anomalous in this group of older women. Five of her friends' mothers, however, have developed breast cancer recently, so she has been thinking about this disease. Her grandfather died from cancer and her grandmother lives with her family, so her current thinking may be influenced by older ideas she has heard from her grandmother, and she indicated that her mother repeats many of these ideas as well.
The Characteristics of Cancer/Breast Cancer

Women in this group shared many of the ideas about the general characteristics of cancer/breast cancer discussed above. To them, cancer/breast cancer was also fearsome and mysterious. There is no definitive cause; it is "indiscriminate," affecting everyone without regard to ethnicity or socioeconomic status, and it is "devastating." All the women said that the term, "cancer" included diseases that "took different forms in different areas," in Bessie's words, but that functioned essentially in the same way. Only Bessie called cancer a "sore that does not heal," and she explicitly associated cancer with the devil's realm, labeling it a "demon." To others, it was a "bad" or "abnormal" cell, thing, invader, or gene.

Pathophysiology

Once cancer/breast cancer has begun, all the women in this group maintained that it "eats," "attacks," and "destroys" body parts and tissues, and that it grows from a small "mass" to a large one. No one, however, mentioned rotting, decaying, or infectious processes in contrast to women of the Folk group. A product of bodily destruction itself, it then destroys "weaknesses" in the body that cannot resist it. Bessie likened cancer to the leprosy of the Bible and to the "flesh-eating" virus that she learned about from the tabloid newspapers. She said, "When the flesh is just destroyed by whatever the little demons are . . . they destroy, they eat up everything." Sally maintained that cancerous cells were chemically different from normal cells, and their chemistry allowed them to attack normal cells. These cells attack and "enlarge or maybe clump together at
a weak point or a weak spot.” Only Gina said that cells reproduce
“dysfunctionally” in her discussion of cancer/breast cancer’s pathophysiology.

**Appearance** - Women in this group used both animal and plant predator
metaphors to describe cancer/breast cancer’s appearance and action. To
Bessie, cancer was alive in that it was a creature that ate, destroyed, and grew;
cancer also referred to the destruction left behind as the “live” cancer moved on.
Bessie said that cancer looked both like “decayed flesh” (the remains left behind)
and like “demons. . . little round somethings” that ate the flesh. It was mucous-
colored in her imagination. Gina and Gayle imagined it looked like a mass that
grew like a plant to Gayle, and specifically like a pansy to Gina. Sally imagined it
as a red or pink mass or growth “that just takes the shape of whatever it’s
consuming or spreading over,” in ameba-like fashion.

**Metastasis** - The women said that cancer/breast cancer spread through
proximity or through the blood stream. According to Sally, “It just moves, it just
grows, moves -- starts from a center and just spreads and grows and attacks
whatever is in its way. Whatever is next to it.” Bessie called this movement a
“chain reaction,” comparing it to nuclear destruction. When asked specifically
how cancer/breast cancer might get from one area in the body to a distant
location, only Sally mentioned the lymphatic system, a biomedically identified
path of metastasis. Others said it traveled in the bloodstream. Only Bessie said
that air “hitting it” during surgery could make it spread.
**Course**

Bessie, Gayle, and Sally stated that breast cancer could not be “cured,” but Gina thought that cure was possible. The first three women used the biomedical and popular term, "remission," meaning that the cancer could be put into a “dormant” state, but they did not think that cure, meaning that the cancer was gone, was possible at present.

Biomedical treatment could affect the course by delaying the inevitable or, in Gina’s case, curing the disease. In contrast to Group One, such treatment could be effective, but it was effective only if the cancer was detected early, echoing the prominent biomedical and popular theme of early detection. The most crucial variable in determining the course of cancer/breast cancer was consistent with these women’s emphasis on stress as an etiological agent (see below) and the necessity of “handling” this stress: only those with a positive attitude had hope of a longer life. A positive attitude, that is, an attitude that resisted the stress of negativity, would help a woman “fight” or “attack” the disease, just as it had “attacked” her. Caregivers should give hope and encouragement and keep the ill one’s spirits lifted. “When you get down in the dumps, everything happens,” according to Gayle.

**Etiology**

To the women in this group, cancer begins in four possible ways: 1) an agent of some kind induces body cells to malfunction; that is, to stop behaving the way they normally do; 2) an agent lodges in the body and turns to cancer; 3) an agent destroys parts of the body; and, 4) “weaknesses turn” into cancer.
Additionally, Bessie and Sally cited the dormancy theory that we saw in Group One wherein inborn cancer is activated by outside agents. In general, these women maintained that cancer, a "thing," "attacks" the body (that is, cells or tissues) at weak points and "takes over," or "destroyed" cells or tissue turn into a malignancy.

Usually the women spoke of cancer as resulting from outside agents coming into the body and "attacking" body parts. Unlike the women of Group One, they did not use the term, "breakdown" very often; rather they used the term, "destruction." The causes of cancer are perceived to lie in several factors, though, again, the women in this group are baffled by breast cancer's seemingly random epidemiology. This perplexity, however, did not reduce the roles of worldly causation and individual responsibility, according to the women of this group.

**Characteristics or conditions of the body**

*Family history* - All the women agreed that one's genetic inheritance was an important determinant of differences in "susceptibility," and used the term, "genes," but, again, genes were not destiny. Genes only increased one's susceptibility, or an individual's "proneness" to develop a disease. As Bessie said, "If the gene is in there, might be like everything else, eye color and hair structure -- I suppose that would be passed on, too." Only she mentioned the theory that a gene itself might be cancer. She said, "Something -- a gene or not a gene -- I don't know what you would call it -- seems to get off the track and goes someplace else." Gina and Sally associated breast cancer with a family
history of the disease in one's maternal line, rather than one's paternal line. As Gina said, "My mother, myself." No one specifically mentioned BRCA1 or BRCA2.

**Immune system** - No one talked about an inherent bodily constitution, though Gayle, Sally, and Gina maintained that maternal nutrition during pregnancy contributed to one's susceptibility to cancer. All maintained that a "poor immune system" contributed to cancer/breast cancer development, and one's susceptibility depended on the state of the immune system. Though eliminating impurities was important to health maintenance, all of these women, like the women of Group One, used words like "fight" (but not "destroy") when talking specifically about the immune system.

**Imbalance in the body** - General imbalance in the body was also important to all the women. Sally and Bessie referred specifically to the importance of maintaining a proper balance of fluids in the body, rather than chemicals (though hormonal imbalance was important, as noted below). Bessie said her body "knew" when it needed water and food and sent her (implying that her conscious thinking self and her body are separate) a signal informing her of its needs. Gina talked in terms of "yin" and "yang," Asian ideas extant in the popular sector about juxtaposed elements. She thought of yin and yang as mind and body, and said that one's mindset must be such that one attends to the body's needs; if this occurred, mind and body would be balanced, and good health would result.
Clogged-up body - All the women except Gina, the youngest member of this group, agreed that being clogged up was risky for breast cancer. This idea is the same fluid and flow folk theory of eliminating impurities and the possibility of impurities turning into cancer that we saw in Group One. As Sally said, "Anytime you have toxins or impurities staying in the body longer than normal might have the possibility of doing some damage."

Poor general health - Bessie, Gayle, and Gina moderately agreed that general poor health was risky for cancer/breast cancer, since a healthy body was better able to fight threats to it.

Female bodies - Characteristics of female bodies also made them vulnerable to cancer/breast cancer, according to the women in this group. All four of the women said that natural female hormones contributed to breast cancer. "Hormonal imbalance" was an important concept to these women. Hormones had to be present in the body in the right amounts. As Gina said, too much or too little of these "secretions" could "screw up your life." Again, no one connected lifetime exposure to estrogens or the timing of reproductive events and consequent hormonal changes to breast cancer, as in the biomedical model.

Bessie, Gayle, and Sally agreed that breasts had characteristics that made them vulnerable to breast cancer. Sally mentioned the "change" theory we saw in Group One. To her, breasts are "an organ that goes through many changes." Gayle and Bessie maintained that the large amount of fatty tissue in the breast made them vulnerable, again referring to the dangers of fat. In
contrast to the women of Group One, no one talked about the breasts’ inherent sensitivity or weakness.

**Weight** - Bessie and Sally both held that one's weight affected whether one developed breast cancer. In general, they thought that being overweight, rather than being too thin, posed a risk for many diseases including breast cancer.

**Aging** - Gayle, Sally, and Gina connected aging and breast cancer through a deterioration in the immune system, in the body’s ability to fight invaders. As Sally expressed it, as you age, “Your whole system slows down. It just doesn’t function like it did and it leave you susceptible so foreign and other matters take over. You don’t have that fighting power.”

**African-American bodies** - The three women in this group who discussed this, Bessie, Gayle, and Sally, generally attributed breast cancer in black women in particular to diet or to possible exposure to environmental toxins. As Bessie said, “... we eat so much fat -- ...and I just don’t think fat is good for much of anything.” She was unsure whether white and black bodies were the same on the “inside,” but she thought that any epidemiological reports in the media “are just to make money and [they] use scare tactics so people will think that they need to rush out and see a doctor.” But Sally, the dietitian, maintained from her biomedical training that some differences in ethnic populations were “geared genetically” (for instance, lactose intolerance), and this would apply to breast cancer as well.
Risks to Self - Items thought to pose risks to self by at least half the women included poor maternal nutrition, female hormones, and aging. Sally, for example, was raised in the rural South, and she supposed that her mother's hard economic circumstances and resultant poor nutrition probably did not provide her gestating fetuses with adequate nourishment, thus creating more vulnerable babies.

Injuries

Similar to Group One, all the women agreed that injuries to the breast contributed to breast cancer. As Sally said, "bruises damage tissue," and damaged tissue is a weakness that can turn into cancer. Bessie repeated the theory about injuries on the inside of the body noted above, that "if bruises, they don't heal properly . . . and if they can't get the light and sun and all . . . , they could turn into cancer.

Risks to Self - Gina and Gayle (50%) held that the breast injuries, meaning bumps, they had experienced could possibly increase their personal risk.

Germs

All the women maintained that germs and cancer/breast cancer were related, but they were not as sure of their direct relationship as were the women of Group One. For example, Sally agreed that it was a possibility because the character of germs intersected well with her "invasion from the outside" conception of cancer etiology. She said, "[Germs] are something that invades the body, they're usually unhealthy or unsafe, something that's present in the atmosphere all around you." Bessie, Gayle, and Gina shared this rather vague
notion: since germs were generally unhealthy and they came inside the (sacred/pure) body from the (profane/impure) outside, it was possible that they were related to cancer development.

Risks to Self - All the women in Group Three moderately agreed that their exposure to germs could increase their risk.

Sex

Unlike their counterparts in Group One, Bessie, Gina, and Gayle did not think that sexual activity in general was risky for breast cancer. Bessie and Sally maintained that some kinds of sexual activities were immoral or abnormal, particularly homosexuality and anal or oral sex, but Bessie did not connect these to cancer. Sally did associate them, but only because such activities could lead to AIDS, which, in turn, could lead to cancer. Again, unlike the women in Group One, no one maintained that playing with or fondling the breasts during sexual activity was risky for breast cancer.

Only Gayle thought that not enough sex was moderately risky for breast cancer. She said, “I think it’s part of the balance in one’s diet.” Also, though they shared an injury theory with the women of Group One, no one connected rough playing with the breasts or sexual biting, etc., to breast cancer.

Risks to Self - No one in this group felt that her personal sexual behavior or experiences increased her risk.

Reproduction

Breastfeeding - No one connected breastfeeding with breast cancer, and only Bessie indicated any uncertainty about it. Additionally, no one said that not
breastfeeding posed any risk. This idea is contrary to the biomedical idea that breastfeeding confers some protection and is also contrary to the clogged milk duct theory of some of the women who belonged to Group One. According to Gayle, "I think it [breastfeeding] is healthy, but I don't think it prevents breast cancer."

Childbearing - Additionally, no one maintained that the timing of one's children or whether one had children or not was important in breast cancer development. Having many children or spacing them close together may "cause other problems," but not cancer/breast cancer, according to these women.

Risks to Self - No reproductive items were rated "3" or above by any members of Group Two.

Natural energy forces

Ideas about the riskiness of natural energy forces varied within the group, but all stressed the limitations of scientific knowledge regarding technologies that used these forces and their power to do harm. Sally, the only one in this group with biomedical training, often disagreed with the others, and based her opinions in this area on evidence reported in scientific journals.

Sunlight - Like the women of Group One, Bessie, Gayle and Gina thought that exposure of the breasts to excessive sunlight could contribute to breast cancer.

Radiation - Radiation was worrisome to all these women, particularly in the form of x-rays and mammograms (See below). Bessie was impressed with how "those rays go right through you and see things."
Microwaves - Again, Bessie, Gayle, and Gina had concerns about microwaves (as used in microwave ovens). Bessie was concerned about "the rays," equating microwaves and radiation. According to her, "Just like anything else, when that gets into your body, it has some reaction, but no one knows." Gina said, "Who knows what those things do!"

Electrical power lines and appliances - Only Sally was concerned about power lines because she knew that the relationship between them and cancer has been investigated. Both Sally and Gina feared some appliances such as electric blankets and cellular telephones. As Sally said, "The excessive use of anything -- there is a possibility," repeating the folk and popular notion of moderation.

Lightning - No one associated lightning and breast cancer in this group.

Risks to Self - No items were rated by at least half of the women as increasing their personal risk. Gina, the only one of this group to consider herself at risk in general, feared her exposures to radiation, microwave ovens, and appliances, and Bessie worried that her exposure to sunlight in her youth increased her risk.

Synthetic chemicals

Hair chemicals - No one saw any connection between hair chemicals and breast cancer, though Bessie thought that "some of it seeps somewhere" and may lead to cancer in other body sites, reflecting the folk notion of a porous body of containers through which fluids travel from top to bottom.
Pesticides - All the women maintained that exposure to pesticides contributed to breast cancer development, but the meaning of pesticides varied. Gina associated agricultural pesticides and breast cancer, and she cited epidemiological evidence to support her theory: “Migrant workers get cancer in a higher portion in like everywhere,” (including the breast). Bessie thought of household pesticides used to kill bugs. Sally thought of bug-killing pesticides and herbicides used on home lawns. She referred specifically to DDT, often mentioned in the popular media, and “Agent Orange,” also mentioned in the popular media because of its use in the Vietnam War and consequent connection to non-Hodgkins’ lymphoma in veterans of that war. But Sally also expressed faith that the Federal Drug Administration would not permit the sale of household pesticides if they were not safe.

Food additives - All the women considered food additives risky, though no one said that food additives made food animals, fruits, and vegetables grow too big or too fast, as did members of Group One. Bessie, for example, attributed ill effects to preservatives that stayed in the body for a long time, echoing the theme that poisons must be flushed from the body. Again, she maintained that there was not enough information about these chemicals, but they probably had effects that are “serious to the body.”

Chemicals in environment, water, etc. - Gina, Gayle, and Bessie agreed that chemicals in the water supply were related to cancer/breast cancer. Bessie cited the alarming appearance of tap water:

> Sometimes when I run the water it looks like you have soap in it. It just bubbles up . . . how they can take the sewage water and
purify it enough for people to drink is always open to question. That's a biggie!

Risks to Self - The women of Group Two were less likely than women of Group One to consider environmental chemicals as personally risky, but they still rated pesticides (50%), food additives (75%), chemicals in the environment (50%), and chemicals in cleaning supplies (75%) at a “3” or above.

Lifestyle

Diet - All maintained that diet was risky; Sally cited high fat diets, particularly those high in red meat, and Gina and Bessie worried about “junk” and “fast” foods. Gina was particularly concerned about food containing Nutrasweet. Gayle and Bessie maintained that if one ate a generally healthy diet (meaning, “balanced,” with lots of vegetables and fruits and not too much red meat), one’s chances of developing breast cancer diminished. Again, themes of the importance of fruits and vegetables, and the dangers of red meat and unnatural chemicals appear.

Caffeine - Gayle, Sarah, and Gina said that caffeine, if ingested “in excess” might be related to breast cancer.

Tobacco products - Bessie noted that she knew people who did not smoke who developed breast cancer, but, smoking has become so linked to cancer in biomedical and popular U.S. culture that no one in this group disagreed with its association with breast cancer. Secondhand smoke also bothered everyone and was considered carcinogenic by all the women, none of whom smoked.
Alcohol - All the women associated drinking alcohol with increased risk of developing breast cancer. Gina, basing her opinion on media reports, associated alcohol with stomach and liver cancers, but acknowledged that there might be a connection with breast cancer as well. Bessie maintained that alcohol "either burns out or dries out the tissues or the innards," and such destruction can turn to cancer.

Exercise - The women all talked about the benefits of exercise, and said that this extended to some anti-cancer benefit as well, though all knew women who exercised who had developed breast cancer. In discussing exercise, Sally, for example, expressed a tripartite notion of the person, and a positive meaning of openness: She said, "Exercise helps relieve stress and opens up the mind and improves your cardiovascular system and keeps your body, mind, and soul working properly . . . it keeps you at ease, keeps your mind open."

Risks to Self - The only item in the "Lifestyle" category that women of Group Two were concerned about was lack of exercise, and only Bessie and Sally rated this at a "3" or above.

Stress

Stress - Stress was a major contributor to cancer/breast cancer according to this group of women; all mentioned it in their spontaneous answers to the open-ended questions in the second interview, and all rated stress-related items highly in the third interview. To all the women, stress meant "negative thinking" and worry in Snow's sense: anxiety over events and conditions one "couldn't control," and meeting the demands placed on women, rather than
physical strain on the body, in contrast to the women of Group One. All maintained that stress diminished the immune system's ability to fight outside agents. Gayle also linked stress to depression, which could create unhealthy conditions within the body on its own as well as promote unhealthy eating habits that could then lead to disease. Sally, repeating the theme of the dangers of changes, said, "Stress brings on a lot of changes in your body.... It may cause complications that would develop into something else."

**Bottling up feelings** - All but Bessie agreed that keeping one's feelings "inside" led to emotional stress that had adverse effects.

**Negative thinking** - Consistent with a personal responsibility perspective and a cultural notion of the ideal person, all said that "handling" stress well reduced risk. They all held that the "mind has tremendous power over the body," and that what one thought affected one's health, reflecting a mind/body dichotomy combined with a holistic theory of mind/body connections. Sally mentioned a notion of cancer as a "self-fulfilling prophecy." If a woman thought that she was going to develop breast cancer, this "negative" attitude could create the conditions within her body that would allow cancer to develop. She thought "failing to control emotions" was risky for breast cancer. Gayle also underscored the need to have a "positive outlook on life" and "inner well-being," or something will go wrong.

**Not enough faith in God** - Only Gayle related lack of faith to breast cancer. She did not elaborate her thoughts, but according to her other statements, faith in God reduced stress, which, in turn, reduced risk.
Risks to Self -- Stress, experienced as anxiety, was a critical element in Group Two women's ideas about what was risky for breast cancer, and all but Bessie rated their own stress as personally risky. Also, because as educated women they read about the popular stress discourse, 50% rated their own tendency to keep their feelings bottled up, a dangerous trait according to popular thinking, as personally risky. This represented criticism of themselves since "ideal" women were able to cope with their stress.

Biomedical Interventions

X-rays and mammograms - Biomedical interventions needed to be monitored carefully, and refused if refusal seemed warranted. As noted above, x-rays as radiation were maintained to be risky to all but Sally, who had faith in their safety as a health professional. Again, everyone but Sally maintained that mammograms posed some risk due to radiation as well.

Breast implants, birth control pills, and hormone replacement therapy - All but Sally maintained that breast implants were dangerous. (Sally was not convinced by the epidemiological evidence.) Bessie said that breast implants "could cause anything," including breast cancer. Supplemental hormones could also be dangerous to three of these women. Bessie, Gayle, and Gina maintained that birth control pills contributed to cancer/breast cancer, but none articulated a mechanism such as interference with natural processes, as did the women of Group One. Only Gina and Sally had personal experience with birth control pills, and neither liked the side effects. Bessie linked them to her destruction model of breast cancer: if birth control pills could destroy eggs (her
theory of how they worked), then surely they could destroy other things in the body as well. Once destroyed, the “thing” that remained could turn to cancer.

Hormone replacement therapy was also suspect to Bessie and Gayle, though neither spoke of the immorality of interfering with God’s design or with natural processes. Gayle, age 64, did not take them though she had had two prescriptions for them; to her, not enough was known about their effects.

Medications - All, but particularly Bessie, maintained that taking too many medications was risky, again because it violated the folk rule of moderation. Bessie ranked this factor uppermost in her causal thinking. She cited several dangers: “You don’t know what’s in them;” people have been killed “by experimenting” with medications and treatments; and unforeseen side effects were dangerous. She maintained that doctors made false diagnoses, overprescribed, and experimented because they were greedy. According to her, “All they want is the money.”

Surgery - No one in this group thought that surgery or biopsies caused or contributed to cancer development, but as we saw above, Bessie thought the “air hitting it” could make cancer spread.

Abortions - No one in this group linked abortion to breast cancer, though Bessie did think that it could adversely affect the uterus by disrupting “the natural process.”

Risks to Self - Gina and Sally worried about taking too many medicines (50%), but Bessie and Gayle maintained they kept their medicine intake to a minimum.
Spiritual

Women in this group did not subscribe to notions of supernatural or magical causation regarding cancer/breast cancer. Though they all believed in supernatural beings such as God, Jesus, and the devil, and nearly all were actively religious, no one in this group thought that God directly punished people for sins by afflicting them with breast cancer, that it was God's will that a person developed breast cancer, that luck was involved, or that the devil or rootworkers could cause it.

Risks to Self -- All the women in Group Two strongly disagreed that any "Spiritual" item increased their own risk.

Social

Social interaction - No one in this group maintained that cancer/breast cancer was contagious and no one stated that talking about cancer/breast cancer increased anyone's risk of developing it.

Societal factors - When asked why they thought black women had higher mortality from breast cancer than other women, all the women except Gina referred to lower income black women in their initial speculations. Gayle cited reduced access to and use of health care, fear of being experimented on, poor equipment in neighborhood clinics, and a poor diet. Bessie blamed the "economic structure, the type of food they have to eat. . . ." She cited high fat diets ("For a long time in the Southern states, their main food was pork", associating pork specifically with high fat levels), and the increased stress that resulted from racism and lack of money. She also maintained that white men's
treatment of black women, a situation that stemmed from the "economic structure," was a continuing source of stress. According to her, many black "women are married to men who do not have adequate jobs and they have to go in these... still a lot of these white homes, and I do believe, [they are] still harassed by some of the men of the other culture."

When specifically asked about higher mortality rates in professional women, Bessie said that the "high diet... once they get to be making bigger money, larger quantities [of food]... rich in content," invoking the folk belief that some foods, particularly red meat, are "rich" and are thus, unhealthy, and the folk suspicion that not all the changes that accompanied wealth were positive.

Gina resented that "people just want to pigeonhole us," meaning that not all black people are poor. She said, "I know plenty of black people that live in the suburbs... My Dad grew up in Hough (an Cleveland inner city neighborhood), and he's not there now!" She also was tired of hearing that black people are "underprivileged," and said that, "It's what you make of yourself." She did not speculate about higher mortality among African-American women.

**Risks to Self** - The women of Group Two strongly disagreed that their experiences with any "Social" item increased their personal risk.

**Overall Personal Risk Perception**

In response to the open-ended questions about personal risk status, of the women of Group Two, only Gina considered herself to be at risk. She attributed this risk to her general poor health (particularly her "female problems"), her job stress, and her eating habits. Her anxiety was also heightened by her
recent experience of five of her friends' mothers being diagnosed with breast cancer.

Neither Bessie, Gayle, nor Sally considered themselves to be at risk, though, again, all were over the age of 50 and Bessie's sister had died of the disease. Gayle and Sally "took care" of themselves, particularly by watching their diets. Bessie's sister had died when young, which allowed Bessie to differentiate herself from her sister. According to her, at the age of 72, if she had not yet developed the disease, it was unlikely that she would develop it, implying that reaching old age indicated bodily strength and resistance to disease.

SUMMARY

Group Two rated 28 items in eight categories above 3.0. Members of this group associated no items in the "Sex," "Reproduction," and "Spiritual" categories with breast cancer causation. The categories and items deemed risky are: 1) Body - family history, immune system, maternal nutrition, imbalance in the body, hormones, aging; 2) Injuries - injuries, bumps, and bruises to the breast; 3) Energy forces - sunlight, radiation, microwaves; 4) Synthetic chemicals - pesticides, food additives, chemicals in the environment, chemicals in the water; 5) Lifestyle - diet, caffeine, tobacco products, secondhand smoke, alcohol, lack of exercise; 6) Stress - stress, bottling-up one's feelings; 7) Biomedical interventions - x-rays, mammograms, birth control pills, breast implants, and medications.
CHAPTER X

WORLDLY CAUSATION

GROUP THREE – THE BUPPIE MODEL

The women of Group Three held a generally popular model of breast cancer that reflected their entry into the mainstream U.S. middle class (See below). But there was also a strong undercurrent of folk ideas in their theories, particularly regarding mechanisms of action. Information gleaned from the media included biomedical notions about lifestyle factors, but also included the stress and pollution ideas that some biomedical professionals reject (see Chapter II). Like the women of Group Two, their language was more sophisticated than that of the women of Group One, but many ideas about the workings of the body and of cancer/breast cancer were the same as those of the other groups.

Again, to these women, though science had not yet found the cause of breast cancer and its epidemiology seemed to be random, its cause and patterns were knowable and they lay in worldly processes and agents. Even if these women distrusted biomedical practitioners and questioned received knowledge and though they were religious, like other middle-class Americans, they had faith that science would eventually find answers.

Description of the Informants

Table 10.1 (Appendix E) includes background information about the members of Group Three.
Most of the women in Group Three are under the age of 40 and all had college educations. In colloquial terms, they are “Buppies,” Black Urban Professionals. Hallie and Vicki are lawyers, Elizabeth and Lee are social workers, Sharon is a psychologist, Doreen is a teacher, and Marva is a nurse. Only Marva was raised in the South and she was also over the age of 60. One would predict that Marva would fit into a group of older women with folk beliefs such as Group One or Two. She is often the “odd woman out” in this group in her causal thinking, but she shares enough core ideas with other women in Group Three to be classified with them.

All the women are members of Protestant churches. Five women said they had a Native American ethnic background and two mentioned European backgrounds in addition to their African-American heritage. Hallie differs from the rest of the group in that her mother is Barbadian and she spent her first seven years in England.

Hallie, Vicki, and Doreen are currently married, Marva and Lee are divorced, and Elizabeth and Sharon have never married, though each currently has a relationship with a man that they consider stable. Elizabeth and Vicki have no children, but Vicki is helping to raise her husband’s children. After several miscarriages, Doreen and her husband adopted a daughter and at the time of the interviews, she was pregnant.

**The Characteristics of Cancer/Breast Cancer**

The women shared many of the ideas about the character of cancer/breast cancer discussed above. All the women communicated the
“mysterious” nature of breast cancer and its etiology. Elizabeth called it “silent, random, and unearned,” and Vicki said that breast cancer was “the disease women fear most.” Several women in this group, in contrast to the two prior groups, however, thought of cancer in biomedical terms as an umbrella term for a number of diseases. All thought that all types of cancer, however, basically behaved in the same way.

Pathophysiology

The women held several notions of cancer’s pathophysiology. Only Marva, said that cancer was a “sore that doesn’t heal,” an idea possibly accounted for by her Southern background and age. Both Doreen and Vicki, though, maintained that cancer behaved like an infectious process, and Vicky combined notions of infectious processes, abnormal reproduction, invasion, and internal struggle that may reflect religious notions of the struggle between God and the devil in her understanding of how cancer worked. She said,

If it’s a tumor, it breaks down — now I’m talking and I have no idea — if it’s a tumor, it breaks down or it infects other cells and then these cells multiply and it breaks down your immune system . . . . It turns very pleasant smiling corpuscles into dark ones, negative, and you’re just down . . . . I’ve never thought about this before. Just like an invasion. . . . Your body is apparently trying to struggle to ward off these things, but it can’t.

As noted above, Lee stated that malignancies start and continue to work by “rotting.” Vicki also said that cancer “takes over” and “grows.” Elizabeth added the notions of “cells being out of control” and an eating process. She visualized “a kind of Pac-Man thing where the bad cells are overtaking the good cells. . . . It’s something that consumes positive things and grows negative things.”
Appearance - Food images of cancer predominated in this group's descriptions of cancer/breast cancer's appearance. The women thought of dumplings, grapefruit, yeast, and cottage cheese, paralleling their emphasis on the importance of diet in cancer causation (See below).

In contrast to other women in this sample, members of this group imagined cancer as being the color, white. For example, Doreen explicitly said she did not want to think of cancer as black, because she did not want to associate another "negative" image with blackness. She combined her visual experience of her grandfather's cancer with her reluctance to further devalue blackness and imagined cancer in a way that was palatable to her. When her grandfather was sick, she said, "All the stuff that came through the tubes was brownish, blackish. I think it's white while it's in your system, then it turns."

Metastasis - Ideas about metastasis also varied. To most of the women, cancer spread through the blood stream or it destroyed body tissue in its path, ideas identical to those of other groups. Elizabeth thought differently, however: she maintained that cancer was systemic from its beginning and that it did not "spread." She repeated the folk theme that the whole body is connected, and said, "I kind of assume that if there's something wrong one place, it's wrong somewhere else, too."

Course

All the women in this group stated that some women could be cured of breast cancer, and all were confident that biomedicine would find a definitive cure for breast cancer eventually if enough resources were dedicated to the task.
As Vicki said, "We just haven't gotten there yet." But how women fared in the meantime was linked to stress. Lee said,

> if you can get to it all and remove it then it can be cured. However, I believe that it can reoccur, maybe if it's not all gotten, it can reoccur. It has to do with stress, the stress. You may have some left, it may not be bad enough to start a rotting process or a major rotting, it's just there and I think stress would have a lot to do with whether or not [it recurs].

The women listed several factors promoted in the popular media that could affect the course of breast cancer including social support from others with cancer, a consistent, experienced doctor, and alternative or complementary treatments such as acupuncture, meditation, biofeedback, relaxation, pet therapy, yoga, acupuncture, and faith healing. Many of these treatments involve stress reduction, a critical player in the women's causal thinking about breast cancer, as we shall see below.

**Etiology**

The women in Group Three held that cancer/breast cancer began in various ways, illustrating their mix of biomedical, popular, and folk notions. Elizabeth, Sharon, Vicki, and Doreen maintained that normal cells weaken, deteriorate and become "out of control." Others repeated theories discussed above: something rotten in the body "turns" into cancer; inborn imperfections, which everyone has, may be "triggered" by outside agents and "manifest themselves" as cancer; or a "germ [from outside the body] attacks you when you're weak." According to Marva, this outside agent can enter the body and wait, biding its time, for an opportunity to strike, much like the viruses that can lay dormant that she was familiar with as a nurse.
Characteristics or Conditions of the Body

Family history - All the women except Marva agreed that family history was an important risk/causal factor for breast cancer, creating “susceptibility” in individual women. Doreen said, “Cancer in general is within your genes. You’re predestined to have it.” In this instance, she used the religious term, “predestined,” to designate an inherent characteristic of one’s body, rather than as a religious term denoting spiritual predetermination of one’s life. Marva simply did not think that family history explained much cancer incidence, having observed many women who had developed it with no family history of the disease.

Doreen and Hallie also expressed the idea of an individual person containing her ancestors within her body that Group One women expressed, indicating the notion of a referential self. As Hallie said, “My family is in my make-up, in my genes.” Like Gina of Group Two, both Doreen and Hallie associated their genetic inheritance with the women in their maternal line. According to Hallie, “I am a part of my mother and my body came from her, it originated from her . . . I am carrying some of the things that she has.” She allied herself with her maternal line because, “I was just much closer to my maternal grandmother . . . and I look like her.”

Immune system - All maintained that one’s immune system was critical in determining whether one developed cancer/breast cancer. To most of the women, the immune system seemed to be inherent, dependent on one’s genetic inheritance, rather than on maternal behaviors during gestation. This immune
system, however, was also mutable, and its state at any time depended on one's "mental attitude" and health-related behaviors.

To Vicki and Doreen, cancer itself "breaks down" the immune system, repeating the body breakdown theme we saw in Group One. To Doreen, Vicki, and Elizabeth, outside agents "invade" the body, and the body, through the immune system, tries to "fight off" or "ward off" the invaders and move them out of the body. Thus, their idea of the immune system is a "moving" system rather than than a "search and destroy" system, again, repeating ideas seen before.

**Imbalance in the body** - Doreen, Lee, and Elizabeth connected imbalance in the body with breast cancer. Doreen, in addition to her thoughts about hormonal imbalance, said that "we need certain nutrients in your system to protect against having immune system breakdown. . . ." Elizabeth, like Gina above, associated this with "mind-body" balance. Grief or stress could produce a chemical imbalance that could be harmful.

**Poor general health** - Everyone except Marva and Vicki maintained that general poor health was related to cancer/breast cancer. Hallie associated this with stress or trauma to the body. She attributed a friend's breast cancer to having gone through the "trauma of birth" and her diabetes. Birth and this illness "stressed her organs and cancer manifested itself in her."

**Female bodies** - Elizabeth, Doreen, Lee, and Sharon stated that natural female hormones played a role in breast cancer etiology. Doreen, for example, stated that hormones could contribute to breast cancer since " . . . it's a chemical balance or imbalance triggered by certain other chemicals within your body."
Elizabeth said that "all the hormonal changes" women experience is "what puts us at the front door [for breast cancer]," repeating the folk theory of the dangers of changes. She noted the irony that reproductive hormones enable women to give life, but they can "turn around and take you out." Elizabeth works with low-income teenage girls in an urban health clinic and reported that many of the African-American teenagers were afraid that hormonal treatments such as Depo-Provera would "give [me] cancer."

The women of this group maintained that cancer might manifest itself in female breasts for a number of reasons. Lee knew that ingested substances appeared in mothers' breast milk, and said that perhaps those chemicals initiated a malignant process by staying in the breast, in accordance with her rotting theory of carcinogenesis. Lee, Hallie, and Doreen associated large breasts with breast cancer, since large breasts had more tissue "to go wrong," in Lee's words. They also had more fat, and "fat is not healthy," according to Doreen, repeating the popular notion discussed above. Elizabeth said that breasts are part of the reproductive system, which is particularly vulnerable because of all women's hormonal changes, also repeating an earlier theme. Marva connected breasts and hormones and breast cancer, combining a biomedical idea with a folk flowing fluids mechanism: "[Breasts are] so full of tiny vessels, hormones flow through."

Weight - Doreen, Lee, Elizabeth, and Vicki associated body weight and breast cancer, but Elizabeth and Vicki maintained that it was a moderate risk. All said obesity rather than excessive thinness was risky. Vicki reiterated a
pervasive popular theme in U.S. culture reported by many authors (e.g., Bordo 1993) when she said, “Nothing ever happens to thin people!” Hallie echoed this theme: “Being thin, I equate that with being healthy.”

**Aging** - All agreed that aging entailed a weakening of the body that could encourage the development of breast cancer. In Sharon’s words, “Your body is less able to fight,” as one gets older.

**African-American bodies** - All the women accepted the biomedical notion that there are biological differences among so-called races by citing sickle cell anemia as evidence that black bodies are different from other bodies. Sharon expressed skepticism, however, about epidemiological reports that separate the races. She said,

> I want to know, ‘What African-American women?’ I always think, ‘What a broad stroke.’ ... What African-American women are at risk and what are the risk factors for those women? I’m aware that there are some conditions that affect poor women more so than middle class or upper class African-American women.

However, she, as did the others, welcomed investigations that specifically target African-American women, and accepted that there might be genetic differences among races. She continued,

> African-American people are more likely to get sickle cell so we know that there is some genetic basis for that. If there’s a reason that African-American people would react differently to the environment, I’d like to know why. I don’t see it as a negative.

**Risks to Self** - Only weight, meaning excess weight, was considered by more than half (57.1%) of the women of Group Three to increase their personal risk. As noted above, Lee and Elizabeth consider themselves obese. Elizabeth works in a health care setting and bases her self-assessment on a biomedical rule
of thumb that defines obesity as being at least 20% over the ideal body weight. Lee assesses herself against popular standards derived from the media and from her interaction with others. She is also particularly concerned about her extremely large breasts and has even considered breast reduction surgery, the only woman in this sample to have done so. Though thin now (even while pregnant), Doreen described herself as "a fat child," and this caused her some anxiety.

**Injuries**

This group differed from Groups One and Two in that only Marva, an older, Southern-raised woman, agreed slightly that constricting the breasts by wearing tight clothes or injuries to the breast were related to breast cancer.

**Risks to Self** - No one in Group Three held that injuries to their own breasts increased their personal risk of developing breast cancer, though Sharon thought her breasts were "always in the way."

**Germs**

Group Three women also differed from Groups One and Two since none agreed that germs played any causal role in breast cancer. Though Marva talked about the cancer "germ" and said that it "attacks you when you're weak," when directly asked if germs caused or contributed to cancer, she disagreed. Her use of the word, "germ" seemed to refer to a different idea about generic "invaders" or "contaminants" rather than to the biomedical concepts of bacteria or viruses.

**Risks to Self** - No one in Group Three held that exposure to germs increased her personal risk.
Sex

The women in Group Three disagreed with Group One, and agreed with Group Two that sexual activities, for the most part, did not contribute to breast cancer. Sharon, Doreen, Vicki, and Elizabeth said that any consensual activities "between two adults" were "moral" and "normal," thus restricting approved activities to those involving no more than two adult humans. This attitude was far more permissive, however, than that of Groups One and Two and of Lee and Hallie, both members of traditional Protestant churches. To them, any activity outside of heterosexual marriage was immoral. Lee maintained that "certain positions" or using "foreign objects" was "abnormal," and homosexuality was both immoral and abnormal, as it was for Hallie. Neither behavior, however, was connected to breast cancer.

Playing with the breasts during normal, moral sex was not harmful to any of these women, and no one thought that not having enough sex was risky. Since they did not share an injury model of breast cancer, rough handling of the breasts was also not connected to breast cancer.

Marva, Doreen, Hallie, Liz, and Sharon, however, held that sexually transmitted diseases, specifically referring to AIDS, could contribute to breast cancer, since AIDS destroys the immune system and cancer/breast cancer could result.

**Risks to Self -** No one in Group Three feared any increased risk due to her own sexual behavior or experiences.
Reproduction

**Breastfeeding** - No one shared the theory that milk production itself could contribute to breast cancer through unexpressed milk clogging the milk ducts and turning to cancer, in contrast to some women in Group One. Hallie, however, did think that if a woman did not breastfeed, breast cancer could result. Her thinking echoed the theme of not interfering with natural processes:

> Once a woman has a baby there are certain natural things that your body must go through and a part of that naturalness is breastfeeding, and if you don’t do it, it gets clogged up and the milk gets clogged up in the sacs in your breast . . . if it gets really, really bad and you get infections, I think that can contribute.

**Childbirth** - Like the women of Group Two, almost no one related the timing of pregnancies and births to breast cancer, in contrast to the women of Group One. Doreen had heard in the media that not having children increased one’s risk, and Sharon remembered hearing that having children too early was risky for breast cancer. Interestingly, the risk attached to not bearing children was particularly compelling to Doreen, since she had a family history of breast cancer and she had not yet been able to carry a pregnancy to term. (She was pregnant at the time of the interview and has since given birth to a healthy baby.) Sharon, currently a graduate student, also had a family history of cancer, and had given birth as a teenager, so she remembered reading about some risk attached to early childbearing.

**Risks to Self** - No reproductive items were rated as risky by at least half of the members of Group Three, but Doreen and Vicki were moderately concerned about not having children and not breastfeeding, and Sharon, as we have seen,
worried about her teenage childbearing. She had no reluctance to talk about her experience and expressed no guilt or regret, but, perhaps, if she had them, such feelings may have been translated into a health idiom. She may not have overtly feared "punishment" from God for her transgression, but she may have feared punishment through health consequences.

**Natural Energy Forces**

**Sunlight** - Sharon, Doreen, Vicki, and Marva related overexposure to sunlight to skin cancer, but also said that breast cancer could result if the breasts were overexposed.

**Radiation** - Radiation was unanimously connected to breast cancer. The women referred to exposures from nuclear bombs, power plants, microwaves, power lines, x-rays and mammograms, and the sun.

**Microwaves** - All but Sharon and Lee associated microwave ovens and breast cancer. Doreen expressed an earlier theme: "They cook food so rapidly it's like something has to be going on." Hallie, Doreen, Elizabeth, Vicki, and Marva feared them because of radiation. Elizabeth said,

> My uncle has given me his whole lecture on low density radiation . . . microwaves I think maybe do something to people . . . We all know they leak and people stand next to them and we don't know what's coming out of them and how strong . . . . We'll all find out!

She implies another theme found in the Protestant tradition and also found by Snow: sometime in the future, in God's time, we will have knowledge, we will understand.

**Electrical power lines and appliances** - Elizabeth, Hallie, Vicki, and Sharon held that power lines were dangerous, and Doreen, Hallie, Lee, and
Marva were concerned about appliances. Doreen, for example, was mildly anxious about electric blankets and seemed to equate radiation and electricity. She said, "[You] don't know what's going through the cords, radiation . . . [There are] several forms, a good and a bad . . . . It's an energy source, if you're overexposed, it can be deadly or helpful depending on the amount."

Lightning - No one in this group associated lightning with breast cancer.

Risks to Self—At least half the women in Group Three (71.4%) agreed that using microwave ovens increased their personal risk, though they all had microwave ovens. For example, Doreen worried about their use especially during her pregnancy. She said, "When it's on, I'm in another room."

Synthetic Chemicals

Hair chemicals - Only Marva mentioned epidemiological reports linking hair coloring and breast cancer, but the linkage seemed to be at least a possibility to Doreen, Elizabeth, Hallie, Sharon, and Vicki, as well. Again, the proposed mechanism is that hair coloring "seeps" into the "system," travels around the body, and causes potentially malignant damage to areas where there is already a "weakness," including breasts.

Pesticides - All except Marva considered pesticides risky for breast cancer. Sharon, Doreen, Hallie, Elizabeth, and Lee thought of insecticides. Lee worked as a social worker in a neighborhood center association that was infested with roaches and was often sprayed with roach killers. (In fact, we killed several during our interviews.) Vicki associated risk with the weed-killers her
father used on their lawn. Lee and Elizabeth mentioned pesticide residues that are left on food and that cattle eat.

**Food additives** - Marva and Doreen did not find food additives risky, but the others did. Again, danger was attributed to that which is not understood. Elizabeth said, “I think about dye or MSG or things with 20 consonants and you don’t know what’s in it.” Vicki echoed this theme: “Oh God, who knows what they put in our food anymore! The label — you get mashed potatoes and you get 50 ingredients in it. The first two are the only ones you need.” Lee also did not trust the regulation of U.S. food in general, and the food in inner city grocery stores in particular; her evidence was the smell and appearance of the meat in inner-city grocery stores. She said, “You can go past the meat counter and it smells, and this is a major grocery store. Even grocery stores like Finast -- their meats are awful sometimes.”

**Chemicals in the environment** - All the women agreed that chemicals in the environment contributed to breast cancer. Marva, who conceptualized cancer as a “thing” or a “germ” that exists outside the body and then “gets inside” the body, said, “Chemicals in the air, in the environment -- somewhere it’s out there. We all have it.” Work sites were particularly suspicious. Doreen, a teacher, was particularly upset about the chemicals she was exposed to in her school. According to her, “This school is a hazardous environment.” Lee’s body, again, alerted her to dangers in her work environment: “There are times when we’re up here and just getting headaches and we don’t know what it’s from. So you smell something weird and it smells like gas and you don’t know what it is.
That's why I say I'm sure there's something." However, again in contrast to Groups One and Two, only Lee and Sharon associated chemicals in the water with breast cancer. The evidence of their senses did not implicate drinking water to the rest of the women: it did not look, taste, or smell dangerous.

**Risks to Self** - Members of Group Three rated the same items in the "Synthetic Chemicals" category as personally risky as the women of Group Two, but they were in more agreement with each other about these items. They rated pesticides (71.4%), food additives (71.4%), chemicals in the environment (71.4%), and chemicals in cleaning supplies (85.7%) as increasing their personal risk.

**Lifestyle**

Women in this group generally agreed that lifestyle factors were strongly related to cancer/breast cancer development.

**Diet** - One's diet contributed to cancer/breast cancer development to all the women of this group. Doreen, Elizabeth, Hallie, and Vicky all mentioned high fat diets as a source of risk, and Sharon, Hallie, and Vicky all said eating "junk" or "fast" food increased one's likelihood of developing breast cancer. Elizabeth said, "I know everything everybody else knows about the 'food pyramid,'" (a diagram that often appears in the popular media and in biomedical materials as a way of educating people about the proper proportions of types of food people should eat), fiber and fruit and vegetables on the [bottom] and protein and dairy at the [top]." She stated that eating too many dairy products could be related to breast cancer, an idea seen in the popular media. She speculated that her
grandmother's consumption of dairy products could have contributed to her breast cancer (See below).

Other foods that were deemed risky included canned and frozen foods that contained preservatives, red meat that came from diseased animals or red meat in general because of its fat content, and burned bacon. Hallie, repeating ideas discussed earlier about red meat clogging the system and the dangers of fat, said, "It's just the properties of red meat. It's heavier, I think that there's more fat content to it, it stays in your body longer."

**Caffeine** - Doreen, Elizabeth, Hallie, Vicky, and Marva held that caffeine led to breast cancer because it promoted the growth of cysts in the breasts and cysts could turn to cancer.

**Tobacco products** - Like the women of Groups One and Two, all the women of Group Three condemned using tobacco products as risky for breast cancer. Most mentioned lung cancer as the primary malignancy resulting from smoking cigarettes, but breast cancer could result as well. No one, however, mentioned the proximity theme seen in Group One, that is, that smoke stays in the chest, near the breasts. The women also linked secondhand smoke and breast cancer, though to a lesser degree, and some spoke heatedly about how they avoided situations where others would be smoking. For example, Elizabeth said, "If it smells like smoke, I don't go in!" Vicki, however, still smoked occasionally. "I like it!" she said simply.
Alcohol - Unlike most of the women in Groups One and Two, only Doreen associated drinking alcohol and breast cancer, and she was only referring to "excessive" alcohol use, "not a glass of wine a day."

Exercise - Doreen, Lee, and Vicki connected lack of exercise with breast cancer, a biomedical idea frequently reported in the popular media. They connected exercise with weight loss, and thus, with the cancer-preventing benefits of slimness. They, like others, did not mention the biomedical theory of the hormonal relationship of exercise and breast cancer.

Risks to Self - In the "Lifestyle" category, diet was the only item to receive a personally risky rating by at least half of the women (71.4%).

Stress

Stress - Like the women of Group Two, stress was also extremely important in these women's causal thinking, along with family history and lifestyle factors. Anxious and upset feelings, activities such as a "party" lifestyle, and meeting the demands placed on them constituted stress for women in this group, rather than physical labor or other physical activity. Sources of emotional stress included marriage, motherhood, work, relationships with others, anger, and anxiety about the future.

The women proposed several mechanisms through which stress could contribute to breast cancer. First, emotional stress could cause depression that could negatively affect the immune system, or as a hyperexcited state, it could directly lower the body's "resistance" by reducing or elevating chemical substances in our bodies. Marva said,
Emotional kinds of settings can trigger that . . . . When you are emotionally, there are some chemical imbalances sometimes, but I think when you are emotionally -- it's just how it works with a cold. When you are depressed and you are emotional, the cold takes over and I think cancer is kind of like that. It's in there and it finds an opportunity. When we are emotionally 'stressed out' or depressed, evidently our chemicals are not the same as when we were, well, maybe there's more or less of what we need.

J.M.: "What do you mean by 'chemicals?'

M.: Just bloods and whatever. I can't think of all of them. I'm not going to try to think scientifically, but we do have something within us that when they say, like your chemistry, 'your chemistries don't mix,' I don't know what that is, but I think there's something in our bodies that can either keep us from having things by not getting more of it. Like the antihistamines. When you get excited you got more of that and when you're calm, you got less, and I think that's what happens and that's when these opportunists in our bodies take over.

"Bottling-up" feelings - Second, stress, conceptualized as sort of a "lump," if not eliminated from the body, could cause damage. Elizabeth, Lee, Sharon, and Vicki agreed that "bottling up feelings" was unhealthy and could contribute to breast cancer development. For example, conceptualizing the body as a plumbing system that needed to be cleansed, Lee said,

Maybe stress has something to do with shutting down with some kind of body system, too, and because of that stagnant process of some sort, then that increases . . . maybe the circulatory system or something. Something that's moving . . . . When you're stressed up, the body just doesn't do what it's supposed to do. I think even when you have your menstrual cycle, a lot of stress will stop you from bleeding.

Apparently, Lee's experiences of her own menstrual process stirred some anxiety about the power of such stress to harm.
Negative thinking - Elizabeth, Lee, and Vicki said that negative thinking could cause breast cancer, sharing ideas mentioned previously.

Not enough faith in God - Only Doreen and Elizabeth connected lack of faith in God and breast cancer, again, because lack of faith can lead one to a generally unhealthy “despair.”

Working too hard - For Doreen, Sharon, Hallie, and Vicki, working too hard was linked to breast cancer through emotional, rather than physical stress. The pressure to succeed in demanding jobs was posited to create feelings of distress that self-evidently must be unhealthy.

Risks to Self – Interestingly, though this category was very important in their causal thinking, no items in the “Stress” category were rated as personally risky by at least half of the members of Group Three. These women all maintained that they had “learned” to handle their stress and not let things bother them, although they “used to” be more “stressed-out,” invoking a notion of the self as improveable through the passage of time and personal effort.

Biomedical Interventions

The women in this group agreed and disagreed with the women of Groups One and Two in their opinions of certain biomedical interventions. Items consistently held to contribute to breast cancer by women in Group Three were x-rays, breast implants, birth control pills, and hormone replacement therapy. Mechanisms of action were the same as those discussed earlier. The majority of women in this group, however, did not think that mammograms or abortions posed risks for breast cancer.
Risks to Self - Women of Group Three did not maintain that any of the items in the “Biomedical Interventions” category increased their personal risk of developing breast cancer.

Spiritual

God’s will or punishment - No one in this group believed that God punished women directly with breast cancer for sins. Only Lee thought that God “might allow” breast cancer to develop (through “natural” means), rather than directly “will” it, but this might happen only in certain circumstances. God might allow this, for different reasons. To teach, maybe to bring you closer to Him, maybe so that you can help others who are going through the same thing, maybe to build your character and make you a better person.

Luck - Vicki and Elizabeth thought that secular luck might be related to breast cancer development.

Devil - Hallie, a 7th Day Adventist, expressed the self-evident logic of the existence of opposing good and evil forces, and the evil meaning of cancer. She said,

If you believe there are forces of good, [then] there are forces of evil, and, unfortunately, there are certain forces of evil that have unleashed themselves on this earth that attack us. One is cancer. It’s not God’s will, evil is not God’s will, but God can help you through the evil, the cancer. It is not God’s will for babies to die.

Only Hallie and Vicki maintained that the devil played any role in the development of breast cancer. Vicki also accepted that if there was good, then there was evil, its opposite, but, according to her own admission, she was “not
that well-educated in the Bible" and did not believe it “literally,” and her thoughts about good and evil, God and the devil were vague.

I don’t think of the devil as like just one guy out there. I think there is evil in the world and that it causes bad things to happen . . . . Some people to me are just evil. They may have had a bad life or something, but they are evil, they are bad and they’re not to be saved and to say that there is redemption there is just silly so I don’t know if there’s something that they’re caused to do or if they were just born like that . . . . I think of the good — there’s no punishment for the bad . . . it’s a sort of foggy thing for me. I mean, surely there’s evil out there. There are some things that are unbelievably so dreadful that it does sort of shake your faith and there must be something going on.

Hallie believed that God and the devil were real embodied beings.

“Because my mind is limited, that’s how I have to think. That’s how I can relate to God and, yes, I believe that the devil is a fallen angel.” She maintained that the devil could cause cancer because, “Anything that basically attacks us or attacks the human body, one thing being cancer, he is a proponent of, he is the originator of.” Again, the devil worked through natural forces by “. . . causing us to smoke, drink, expose ourselves to whatever.”

Elizabeth also believed,

in the presence of evil in the world. I don’t believe in the persona of the devil as something tangible . . . . I don’t think that people are zapped by some evil being and I don’t think that being evil means you’re going to be unhealthy either. A lot of people who are very evil -- Strom Thurmond -- [are thriving]!

Expressing a theme often noted in research on AIDS, Elizabeth said that considering illness a punishment for sins enabled people to distance themselves from that illness. She did not think that illness represented transgression in any moral sense. Poor health habits had natural consequences, but poor health
habits were not sins. She did not locate the cause of poor health habits in some evil being, as did some women who thought that the devil promoted anything “negative,” including poor health habits. She said,

I think it’s easy to attach some meaning or significance to illness and assume that it represents some kind of bad quality because then we can separate ourselves from it. We don’t seem as vulnerable in some way. THEY did something, or they’re being punished for something.

Lee expressed a view of the body as a container for different spirits, God or the Holy Spirit, and the devil, and of the person as capable of containing others within it. An ideal person contains the spirit of God. To her, the devil is:

the second strongest force out there and I believe that he’s out there and I believe that he has an army of people — not people, spirits — working for him and doing his will and I think that unsaved people are at risk and saved people are at risk of being influenced. But unsaved people are more at risk.

J.M.: How does being saved put you less at risk?

L.: Because of the spirit that’s in you. Not necessarily that you’ll always make the right decisions, but your chances of making the right decisions are there. Unsaved, your chances are not as great as if you have the spirit in you.

J.M.: Can the devil’s spirit get in you, too?

L.: Get into a saved person? No . . . . You get tempted and you might even do the wrong thing, but as far as him taking control of your life, as long as you have the spirit in you, God can take control.

Working roots - Though all had heard of the roots tradition, only Vicki moderately attributed any causal role in breast cancer to it. In Elizabeth’s view, putting curses on people was “extremely cathartic . . . It’s a harmless way to deal with rage,” to her, a necessary prerequisite for good health.
Risks to Self - At least half of Group Three women did not rate any "Spiritual" items as increasing their personal risk. Hallie and Vicki thought that the devil's actions may tempt them into risk-producing behaviors, Vicki thought that luck might place her at risk, and Lee thought, like Thelma and Margaret of Group One, that God might will breast cancer for her.

Social

Social interaction - No one maintained that talking about breast cancer posed a risk for cancer and no one had any fears about contagion from others.

Societal factors - All but Sharon held that being African-American increased one's chances of developing or dying from breast cancer. Again, most referred to poor black women. Elizabeth attributed the excess mortality to the health behaviors of poor black women: they did not practice prevention, they had poor eating habits, they did not see doctors for health care or screening exams. She attributed these behaviors to poverty, reduced access to health services, and the easy availability of fast food in low-income communities.

Vicki connected breast cancer rates to stress experienced by black women in all socioeconomic levels. Sharon said that if middle-class black women were at higher risk of dying than middle-class white women, it was because black women had to concentrate on doing the things that would lead to success more than their white counterparts.

Several women connected the lack of understanding of breast cancer to the fact that it occurs largely in women, rather than in men. Hallie was particularly suspicious of the effects of birth control pills, and said that since
there were "not many studies of women's health, not many studies of birth control and the [long-term] effects," women were vulnerable to breast cancer. To her, this was part of the "male agenda." All but Marva thought that if men got more breast cancer, there would at least be "more action," if not a cure.

Risks to Self - All the women in Group Three strongly disagreed that talking about cancer or contagion increased their personal risk and none felt at risk from the societal factors they mentioned except Lee, who lived in the inner city.

Overall Personal Risk Perception

Of the women of Group Three, when responding to open-ended questions about personal risk status, Elizabeth and Sharon considered themselves to be at risk. Sharon attributed her risk to giving birth as a teenager and Elizabeth said her risk lay in her obesity.

Hallie, Marva, and Doreen did not perceive themselves as being at risk. Hallie and Marva cited their lack of family history, their healthy behaviors, and their avoidance of unhealthy foods and medications. Doreen's family history placed her at increased risk in her own and in biomedical terms, however, she, like Vernita, had learned to "pull back" when dealing with the stresses in her life, and, in her opinion, this ability differentiated her from her grandmother who had died of the disease.

Lee and Vicki were ambivalent about their own risk status. Vicki's gut feeling about herself was that she was not at risk because she had no family history of breast cancer, but "intellectually speaking," she said, "Sure, it can
happen to me.” Lee said that her excess weight and big breasts increased her risk, but her healthy lifestyle mitigated these factors.

SUMMARY

Group Three rated 16 items in six categories as risky. No items in the Injuries, Germs, Sex, Reproduction, or Spiritual categories were deemed risky. The categories and items thought to pose a risk are: 1) Body - family history, immune system, poor health, female hormones; 2) Energy forces - radiation, microwaves; 3) Synthetic chemicals - pesticides, food additives, chemicals in the environment; 4) Lifestyle - diet, tobacco products, secondhand smoke; 5) Stress - stress; and, 6) Biomedical interventions - x-rays, birth control pills, and breast implants.
CHAPTER XI
WORLDLY CAUSATION
PROFILE: ANNETTE

In this profile of Annette, I will bring one person’s ideas together into a coherent whole. I chose Annette because she had many ideas that were typical of Worldly model holders (particularly of her Folk group), and she articulated her ideas very well. This chapter will include background information about Annette, her sources and attitudes toward knowledge, and her ideas about breast cancer and its risks to women in general and to herself in particular.

Background information

Annette is a dynamo of action and opinions. Though over the age of 60, she remains politically, socially, and intellectually engaged with her world. She tirelessly promotes the welfare of the children she cares for and of the members of her family and social network, and she enjoys as many political and cultural events as she is able to attend. She is a living contradiction to every negative stereotype of a public housing resident: she is intelligent, hard-working, informed, eager to learn, kind, compassionate, and clean -- and she bustles from early morning to late at night. Her life also contradicts so-called sympathetic portraits of the poor as victims of macrolevel forces who live degraded and hopeless lives. Her life circumstances have been dictated to a great extent by the conditions into which she was born and she is acutely aware of the problems created by economic conditions in U.S. inner cities (see below), but she is

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anything but a victim. She has actively created her life and it is full of love, joy, commitment, and involvement.

Annette first described her heritage as only African-American, but when I pressed her for more details of what she knew about her foreparents, she said, “Ok, I’m mixed with Indian -- Blackfoot. My grandfather was a pure-blooded Indian. . . I am part Creole . . . and all of my people come from the South -- Mississippi, Alabama, New Orleans, St. Louis.”

Annette grew up and still lives in a part of Cleveland that she remembers as full of black-owned businesses. Jobs went, drugs came, and the landscape changed from bustling to barren. The change saddens, but does not mystify her. She attributes it all to money; as she said many times in our interviews, race does not divide people, money does. “Money seekers” just “throw up” race to divide people and get more money for themselves. With her characteristically moral judgment, she characterized the people whose decisions and actions have decimated her neighborhood: “They too greedy, materialistic, and power hungry and money hungry.”

Her own employment history followed Cleveland’s historical changes. As employment opportunities for both men and women in the private sector dwindled in the area, she sought and secured government positions that included subsidized housing and social services for her and her child.

While working as a clerk in one of the businesses in her area, she married and had her only child, though she suffered several miscarriages and a stillbirth. She also helped her mother raise her deceased sister’s children and
several children of families she has worked for, as well as neighbors’ children. As she often says, “I just love children,” and her actions support this assertion.

Her first husband was a “fool,” and he did not support either their child or her, though jobs were still available in the area. They divorced and she married a “good man” who was “beautiful” to both her and her child, but he died. She has not remarried since the death of her second husband, but has had several successful and not so successful relationships with men. Though a man she sees now has offered to buy her a house, she is not willing to give up the independence she enjoys, and so, has refused his offer. (She said of her single life, “Free at last, Great God almighty, free at last!”) Her relationship with this man is sexual: she said, “I don’t need a man if I ain’t gonna sleep with him! God have mercy! I need his money and I need his affection!” However, she also indicated that she adhered to her own standard of acceptable sexual behavior when she said, “I would not live with a man out of wedlock.”

She described her religious history and commitment this way:

I was sprinkled [baptized] into Presbyterian when I was 12 years old... My people were Baptist, but see, my mother’s babysitter was a Presbyterian and I liked to go to church with her... because I could understand what they were talking about, and then we had fun...I like lectures, I like the intellect. I learn from it and how I can put it into my daily life. I can’t always do that so much with other denominations... cause religion to me works every day -- not just as prayer meeting and Sunday School and go to church. It is a lifestyle of caring about yourself and other people and giving and having them give to you.

I went and researched about all different denominations, and in the years of slavery, it was the Presbyterians, it was the Methodists, and it was the Catholics that housed slaves.20 So, you see, these people have always been of a giving nature...
[and] definitely the Quakers. . . . That's what it's all about. You can talk this talk, but if you don't walk it, just shut up.

She remembers her puberty as an exciting, "positive" (a word she used often) time. She considered it an honor to have the body of a woman, and felt that she was attractive and desirable. Breasts are very much a sign of womanhood to her, and they have both nurturing and sexual functions and meanings.

In terms of health, Annette describes her past health as "terrible, the worst." Her current health is "worse than a lot, better than some," but she considers herself "mentally very strong." She currently has orthopedic problems, arthritis, and high blood pressure for which she takes medication. Her pregnancies were difficult and, as she said, "I caught hell going through the change," referring to menopause. She suffered night sweats and depression, but could not use estrogen because "it made the lumps come in my breasts." She referred to these lumps as "milk duds," applying the name of a chocolate-caramel candy, and she did not connect them to an increased risk of breast cancer.

Reflecting a dominant U.S. value, being "in control" is important to her in all areas of her life, and her relationships with her doctors are no different. These relationships are good because she insists on doctors who will explain things to her, who work in partnership with her, and who "really care." As she put it, "WE doctor me."

Though control is paramount, she turns some things over to God's will when she feels she cannot control a situation, illustrating that God's will is
culturally available to her to use as an explanation. For example, as a result of an orthopedic problem she could not walk. She prayed, “Well, Lord, if it’s your will for me to walk again, put me on my feet. [if it’s not,] allow me to accept your will.” Apparently, in her thinking, it was God’s will that she walk, because she walks today, albeit with difficulty.

Her own recounting of attributing her ability to walk to God’s will is distinguished from her statements about other misfortunes, including breast cancer. As we saw earlier, Annette believed that, in most circumstances, misfortune occurred because of one’s actions and “the natural order of things.” In elaborating this philosophy further, she articulated the general ideas of the women who subscribed to a Worldly model of breast cancer causation:

I don’t believe that God predestines for nobody to have a miserable life. . . . I believe that certain circumstances and how you cope with it and the external things that come in, all of this. And most of all, it be your own attitude. . . . Cause you can take a bad circumstance and turn it to a million dollars. . . . A good attitude is to roll with the punches and cope with it, and if anything, make it a stepping stone.

J.M.: Some people say that God does give you these things as a test or to teach you lessons. Does that make any sense to you?

Some sense, yes. Life itself is a test, and so I wouldn’t say, He made me fall and break my neck to teach me the next time not to walk over there. I mean, the sidewalk was cracked — so you fell and broke your leg. I mean, not everything is that God done jumped up and did this, that, and the other. That’s too cut and dried for me. . . . I’ve heard what you’re saying, there’s a hurricane or something great happens. ‘THE LORD DID THAT TO SHOW THEM PEOPLE THEY WICKED WAYS!’ Now hold it a minute! The Lord ain’t around here doing heinous things to people — your own evil, inadequate ways probably made the . . .

After all, man has free will and it’s his choice and you have your negative and your positive thoughts and if sometime, being
human, you choose negative, [then] you have to go with the consequences.

Though poor health results from poor personal choices, as a public housing resident herself and an advocate for other residents, Annette understood the health consequences of poverty well. When asked what she thought were the major health problems in her community, she answered "low economics, no jobs, depression." She continued,

When there's low economics, low education, that creates health problems. People go into depression, people become malnourished, people use different things to cope with their problems, and all this affects their health . . . inner city, urban living is very -- [it] affects the health.

Annette's basic orientation, however, is belief in her own and others' agency (except in certain circumstances), and, true to form, she relies on herself for health information. She attends health-related conferences and reads, and, as she said, "I make it my business to be very knowledgeable about it." She likes her health information to be supported with stories of others' personal experiences, and she trusts information sources, both media sources and health professionals, who seem to be knowledgeable and who give the "facts." She considered epidemiological reports about higher incidence of breast cancer in Cuyahoga County [according to the data available at the time of the study] to be "another one of your poppycock lies." She suspected that comparisons with other counties had not been made, and said that if researchers could not identify why incidence might be higher, she was not going to accept such findings. To her, the term, "risk factor" meant that if you have the condition or if you practice the behavior, you are in danger of that particular misfortune.
She also always takes important decisions or questions to God by praying for knowledge and answers, and she relies on communication from God through her body as a guide to truth. As she said, "Your own body will tell you" when something is true. She regards doctors as "guided by God" and says that "Any good doctor will tell you how far he can go and how far he can't go and he will admit that there's a power greater than he and it is in His hands."

**Cancer/Breast Cancer Knowledge**

Annette termed cancer a "sore that eats away at the body, whatever part of the body it attacks." It is a "mass -- it grows and it eats at whatever part of the body it's attached to." It's "unnatural, it's not natural," and it looks like a dark bruise on the outside of the body or "like a little hickey" with no color on the inside. She thought that cancers differ from each other in their "size, where it attacks the body, how soon it's detected, the immune system -- how it deal with it. . . . Some cancers grow big, some cancers eat away at the cells." As noted above, she thought that everyone is born with a certain "constitution," or body strength that is reflected in the strength of the immune system and in the strength of body parts themselves.

To Annette, cancer begins when "something goes wrong with the cells." They deteriorate and then become predators, eating away at the body. Concerning metastasis, Annette said, "Maybe it keeps getting larger in the mass itself or it's a hole, like a sore -- it gets bigger and bigger so it's going over more areas of the breast," reflecting a proximity theory. She also articulated a flowing fluids theory of physiology and said, "All things have drainage. Maybe some of
the drainage from this cancer gets in the blood system, some of the fluid from it or something.”

Regarding etiology, agents can enter the body and begin a malignant process or there is “something” about an individual body that makes it “susceptible” to developing cancer/breast cancer on its own. She thought in terms of “contributors” rather than causes when discussing cancer/breast cancer’s etiology. Table 11.1 (Appendix F) lists the items Annette considered to be contributors to breast cancer, and the ratings she assigned to each item.21

As Table 11.1 shows, Annette thought that items in every category except the “Social” category posed dangers in terms of breast cancer. According to Annette, women most at risk were women with,

poor immune systems, if they’ve had some form of female trouble -- maybe they’ve had their children too early in life and their body wasn’t fully developed or maybe they had some illness that destroyed the immune system . . . [or] their body can be born that way.

She did not connect breast cancer causation to God’s actions in any way. In general, Annette thought that “if you don’t take care of your body,” it could lead to “breakdown of the body,” caused by outside agents or conditions within the body itself, and ultimately, to cancer. Of the 35 items she agreed were related to breast cancer to some degree, she assigned ratings of “5” or “4” to 26 of them (74%).

Regarding her personal risk, Annette indicated that 16 of the 35 (46%) items she designated as risky to anyone also increased her own personal risk. She assigned the same rating to most of these 16 items that she assigned to the
items when rating their risk to women in general, however, she rated “Poor health,” “Aging,” and “Working Too Hard” as less risky to her than to others. On the other hand, she considered her personal diet and her experiences with mammograms to pose greater risks to herself than the items posed to others. She did not elaborate on why she considered them riskier to herself than to others, but she talked about them with great emotion, indicating the extent of the anxiety these items caused her.

Following the format used above, the following sections detail some of Annette’s ideas about breast cancer risks to others and to herself.

**Characteristics or conditions of the body**

Annette agreed that family history, a poor immune system, female hormones, poor health, excess weight, and aging contributed to breast cancer. She did not endorse imbalance in the body or a clogged-up body.

Her conceptualization of the immune system included several ideas: 1) The immune system worked through elimination of impurities; 2) Each individual’s body was unique; and, 3) Maternal nutrition during gestation could influence its strength. She said,

> If you get a cold, maybe you can throw it off and it doesn’t turn into the flu or pneumonia because your own immune system can throw it off. Throw off germs and diseases . . . through the fluid that comes out of your body. Through your urine and through your bowel movement, through your own diet, how you been eating and how your constitution, your immune system, what is it able to deal with. All of it really go down to the fact of your own individual body. And there’s no two bodies alike.

She also felt that the immune system “broke down” with age.
In her view, cancer results from body breakdown, such as that caused by aging. A breast is particularly susceptible to breakdown because "it's a very sensitive part of the body." Her own experience is her evidence for this special sensitivity, meaning that breasts react to use. She said,

The breasts are sensitive to touch, they're sensitive in the nature of the way the breasts is made up. . . . Before I nursed my son, my breasts were upright. They sitting up, they were up without a bra on — well, now they're hanging, they're flat and they're flabby, and so I took that to mean by being sensitive, they broke down. Otherwise I could have nursed him and then my body would have went right back up the way it was in the beginning. But they were sensitive, so they broke down.

She also thought that aging was related to breast cancer, in part because of her understanding of female hormones. She said,

You got female hormones and you got male hormones. And that's what makes, one factor that contributes to making the differences between the male and the female. And as you get older, you begin to lose your female hormones, and so that changes the whole body, even changes you psychologically.

Sometimes Annette did not endorse items because she felt that, though they could cause health problems, they were not specifically related to cancer or breast cancer. Sometimes her logic was inconsistent. For example, though she conceptualized the body as a plumbing system, she did not agree that a clogged-up body could lead to breast cancer. She said,

I agree you do have to keep your system open and keep your system clean, but I don't think it would cause breast cancer or cancer. It could cause you to be poison to your whole — It could cause you to be DEAD. But I would never just single out cancer.

Referring to menopause in terms of the dangers of not ridding oneself of menstrual blood, she said, "When you were doing it, it was a naturalness for your
body the way it was then, and you've lost a lot of that, so it's not a naturalness for your body any more." In other words, the body's requirements and functions change through time. What is natural for one phase of a woman's life is not necessarily appropriate for another phase; the body adjusts, if allowed to function according to "the natural order of things," though as we saw, aging causes unhealthy, though natural, changes.

Excess weight could contribute to breast cancer because it was generally unhealthy, but breast size was not related to breast cancer, in her opinion.

Regarding African-American bodies, she attributed any differences in incidence or mortality to external factors such as poverty, rather than to any inherent differences among bodies of different racial groups.

**Risks to Self** - Regarding family history, Annette also regarded her body as a continuation of her ancestors' bodies. Like Joanne, she said, "My body is like my people." She was not aware of any breast cancer in her family, therefore, she did not feel personally at risk on this account. Her age did increase her risk, however, in her opinion. She has some current health problems and has had health problems in the past, so she worried about the strength of her immune system and whether it was declining with age. As she said, "I don't throw things off as well. It's broke down." Another age-related change was her perceived reduction in her female hormones.

Her weight also worried her because she generally felt that being overweight "can cause a lot of different things." She was diabetic and had been told that she needed to control her weight. She has had trouble doing so, and so
she generalized her anxiety about this to other health conditions. This was the apparent source of her concern, rather than any biomedical knowledge about the relationship between excess weight, fat, and breast cancer.

Injuries

Annette did not think that wearing tight clothes contributed to breast cancer, however, she did think they could contribute to other types of cancer. Her evidence was the marks left on a body when clothes were too tight. She said, “You gotta be pinching up something there. You could be injuring yourself.” Injuries, bumps, or bruises on the breast could contribute to breast cancer in her view. In fact, injuries and “not taking care of your body” are the factors that Annette mentioned most prominently in her spontaneous remarks. According to her, injuries could cause “something else to go wrong with the cells.”

Risks to Self - Injuries to the breast that she has experienced could increase the possibility of breast cancer, in her view. For example, she said mammograms increased her personal risk because, “I’m older, my breasts are more sensitive.” Referring to an experience with mammograms, she reported, “She [the technician] slung that thing down on my breast, no telling what happened to it.” She protects herself from perceived danger by telling technicians, “Just wait -- don’t get carried away here. Don’t go mashing and don’t go pulling!”
Germs and Infection

She agreed that germs, which are alive "like little insects," could contribute to cancer. She said, "We don't know what these little bugs have in them so who knows what's in there and it gets in your body."

Risks to Self – Since Annette believed that germs were ubiquitous and were somewhat out of one's personal control, she was placed at risk of developing breast cancer through her exposure to them.

Sex

Immoral and abnormal sex, rough playing with the breasts, and sexually transmitted diseases such as AIDS could contribute to breast cancer in Annette's thinking. Her ideas derived from her injury and germ theories. Immoral and abnormal sex to her was hurtful sex. Unlike other Group One members, she did not consider homosexuality to be immoral or abnormal, and homosexual women were only at risk of breast cancer if they practiced hurtful sex. She said of homosexuality, "Cause some people were born that way . . . . People can't help the way they're born."

Risks to Self - She had not suffered personally from sexual injuries, however. She stressed that she has never allowed anyone to "abuse" her breasts. She also did not practice any sexual behavior she considered to be abnormal or immoral and has never had a sexually transmitted disease, therefore, injuries and infection from sexual sources were not threats to her.
Reproduction

As far as Annette was concerned, neither breastfeeding or not breastfeeding was connected to breast cancer; she had seen too many instances of both that had not led to breast cancer. Having children too close together, having children too early, and having too many children were risky because of the strain it placed on the body, however, she knew one woman who had had 24 children and never developed breast cancer.

Risks to Self – Having had only one child, she did not believe she had worn her body out with childbearing, and thus was not susceptible to breast cancer on this account.

Natural Energy Forces

Annette agreed that sunlight, radiation, microwaves, electricity, and appliances could contribute to breast cancer. She, too, mixed ideas about electricity and radiation. For example, she thought that “so much radiation come off of” electrical appliances and this made them dangerous. She found danger in electricity though she could not quite explain why. She said, “It has a lot to do with electric current that’s interacting with your own body because we have electricity in our own bodies, and exactly how that interacts, I can’t put it into words.” She also found microwaves and computers dangerous because of the radiation. Power lines did not pose a danger because they are outside one’s living quarters and are too distant from bodies to affect them.
Risks to Self – Annette was personally concerned about the risks inherent in modern life, and was particularly concerned about her exposure to radiation in appliances.

Synthetic chemicals

Annette found this category of risks less dangerous than other women in her group and in the sample as a whole. Regarding pesticides and chemicals in the environment, she felt that they can have other bad effects, including cancers in other parts of the body, but they are not particularly related to breast cancer. She regarded food additives and chemicals in cleaning supplies, however, as risky for breast cancer, though she did not explain why they were different from other chemicals. One suspects that this, again, represents more a generalized complaint about onerous tasks and feared substances than a belief that the item is causally related specifically to breast cancer.

Risks to Self - Annette was personally concerned about food additives and chemicals in cleaning supplies. Though she lived in an economically depressed area, she found some comfort in industry’s flight from the city, since, regarding air pollution, she said, “There are not a lot of factories around here and I’m not exposed to a whole lot of fumes and that type of thing.”

Lifestyle

Though her responses to the open-ended questions highlighted the importance of taking care of one’s body and personal responsibility for health, she did not say that lifestyle items, except alcohol, were strongly related to
breast cancer. Since she had seen the strong effects of alcohol, she was impressed with its power as a poison to the system.

Annette repeated that meat was dangerous food. She said that foods that were high in fat or cholesterol, such as meats, or foods with "something added to it" could break down the immune system, "make you susceptible to a lot of things, so why not cancer, too."

**Risks to Self** - In her opinion, her diet was not as healthy as it should be, and this caused her enormous concern. She thought her poor diet would "contribute to break down my constitution if I don't eat right and watch cholesterol," again, particularly because of her age. Her lack of exercise also concerned her, again, because of its connection to excess weight. She did not practice other unhealthy "lifestyle" behaviors in her opinion, and was therefore not concerned about risks to her health on their account.

**Stress**

Stress was an important risk category to Annette. Stress, which she considered to be anxiety and tension as well as physical strain on the body, could lead to breakdown in the body. Bottling-up feelings and not having enough faith could lead to stress, and working too hard or overtaxing the body could lead to strain, and, in turn, to body breakdown and eventually to cancer.

**Risks to Self** - Annette separated her ideas about her personal vulnerability due to stress into two different aspects of stress. She did not think that stress, meaning anxiety, increased her risk, but it would "if I let it bother me." Stress on her body from working too hard, however, did pose a risk for her. She
emphasized how hard she worked and how many activities she had. She repeated traditional folk wisdom about the necessity of moderation and balance:

If you're working too hard and you're too stressed out, you're gonna get all sorts of things. You're not gonna have enough rest, you're not eating right, you don't have enough time to relax, enjoyment, and it's gonna cause [poor health] . . . .

In this same vein, she said of African-American women in general (implying her image of herself), "We are the mother of our nation, and we feel that if we aren't there, the world would stop." While she relishes this role as mother to the nation, at times the physical strain of all she does wearies her, and she occasionally spends a day "in the bed."

Biomedical Interventions

This was also an important category of risk, and Annette stated that x-rays, mammograms, biopsies, birth control pills, hormone replacement therapy, and abortions were all risky for breast cancer.

Her fear of biopsies originated in her ideas about the air and in the folk belief that cancer spreads when the air hits it. She said of the air,

You know air has a total effect on the body period. Stale air, fresh air, stuffy air, stifling air, too much air -- so if there's something already wrong with the body and they open it up and that air hit it, who knows what it does to it.

She did not see danger in surgery in terms of developing breast cancer, however, because cancer had to be present already for the air to have a deleterious effect

Birth control pills and hormone replacement therapy "could cause almost anything," according to Annette. She said, regarding birth control pills,
A lot of women are saying they make them sick, they back up their menstrual period, they don't agree with them. And Lord knows what's in 'em. So it could -- it causes most anything.

Abortions were dangerous because, "It messes with the body" and "It's very unnatural to screw around with your body like that." Annette said she "would never have done such a thing . . . I love children. I could have never done that." In accordance with her view that one should take bad circumstances and "turn them into a million dollars," and that life is God-given and sacred, she said, "There's so many women that don't have children that want to have children and so just bring the little baby on here and let somebody have this baby who wants a baby . . . . Give them what God gave them -- life."

**Risks to Self** - Her fear of mammograms derived from her injury and aging theories rather than her fear of radiation. She continues to get mammograms, "because that's the one way they can tell what's wrong inside of your breast. It's necessary." She protects herself, as we have seen. She did not discuss her experiences with biopsies, though she said they increased her personal risk.

**Spiritual**

Annette felt strongly that people who attributed breast cancer to God's punishment or will, or to luck were "just plain fools!"

Though Annette did not believe that the devil played any role in cancer causation, she did believe in the power of roots. She knew a lot about the practice because her grandmother had been a midwife and she herself had "studied up on it." Roots were natural substances that were used either for good
or evil. She mentioned white potatoes, Swiss chard, nettle teas, and brown paper bags or envelopes as well as hair and nail clippings as roots. She said that there were few people left who were knowledgeable about the “negativeness” of roots, but she did know of one man who lived on a corner near her house who could conjure. Her understanding of the connections among body parts while a person is alive has been quoted earlier: in short, anything that was a part of a person remains alive while that person is alive and can be used against him/her if someone “know his stuff.”

Risks to Self — Again, she did not feel vulnerable because of God’s will, punishment, luck, the devil, or conjuring.

Social

Neither talking about cancer nor contagion represented risks to Annette. Her views on the health effects of societal conditions are noted above.

Risks to Self — Annette did not feel at risk from any social item. Though she lived in economically depressed circumstances, she made sure she took advantage of all information and services that were available to her, and thus she managed well within her situation.

Overall Personal Risk Perception

Annette did not feel at risk of developing breast cancer, though she attributed some personal risk to several items noted above. As we have seen in this sample, personal risk perception is related to ideas about the role of God in life events. Annette, as a Worldly model holder, did not believe that God’s will
played an ultimate role in breast cancer causation, and this opinion extended to her own perceived risk.

Personal risk perception is also related to one's attitude toward and experiences with one's own body. Annette exudes self-esteem, self-confidence, and love of her female body and female experiences. She has been generally happy with her body and her appearance, though she admits to being overweight now. She considered developing breasts "an honor," because her "body was developing the way it was supposed to be as a young woman, young lady, and it made your clothes look nice." Concerning attention from men, she said, "When you looked the way you supposed to look as a feminine female and you got the attention, it made you feel good. It still makes me feel good! I was proud of it [her body]." She enjoys the sexual feelings she experiences in her breasts and "loved" breastfeeding. She "loves" her color and declared, "I am an attractive woman." Regarding her own body image in relation to other women, she said, "I never . . . compare[d] myself to another female," but she sometimes thinks that other women are jealous of her.

SUMMARY

In summary, Annette exemplifies holders of the Worldly model in that she articulates some of their key themes. In Annette's view, God does not will that any woman develops breast cancer. Additionally, she holds many folk ideas about breast cancer and its etiology. Her ideas also often reflect the moralism of Protestant teachings. In addition, however, she challenges some of the knowledge and attitudes that have been communicated to her by her forebears,
the media, and biomedical practitioners. She gathers information voraciously and has observed her circumstances and the circumstances and lives of those around her. She actively creates her own knowledge from that available to her according to her experiences and her body's signals that something is true.

Other representative themes expressed by Annette include: 1) the dangers of some biomedical interventions, but the importance of health care and partnership with doctors; 2) the "natural" order of things; 3) the health consequences of poverty; 4) distrust of epidemiologic information regarding breast cancer; 5) the unnatural nature of cancer; 6) cancer as a predator; 7) cancer as a sore that does not heal; 8) innate, yet mutable constitution of the body; 8) importance of family history; 9) conception of the immune system "fights off" disease; 10) the flowing fluids theory; 11) many items played etiologic role; 12) etiologic importance of meat, injuries, strain, sexual behaviors, and germs; 13) reproduction etiologically important due to strain on body; 14) body breakdown from age, abuse, and illness; 15) the particular vulnerability of breasts; 16) importance of air; 17) importance of moderation and balance; and, 18) black women bear particular burdens.

Most importantly, in Annette's Worldly model of breast cancer, though some risks, such as one's inherent constitution, exposure to many germs and toxins, and aging, were out of one's control, whether one develops breast cancer or not depends heavily on one's own behaviors. Annette herself maintained that she took care of her body, avoided anxiety and immoral behaviors, learned all she could, worked in close partnership with her doctors, and strongly advocated
on her own behalf. This afforded her as much protection as anyone could have from breast cancer. Her self-esteem, which is based on the culturally constructed values of attractiveness, control, action, strength, moral behavior, and positive attitude, ultimately determines her perceived risk status: Annette, in her own view, is not at risk.
CHAPTER XII

DIVINE CAUSATION

GROUP FOUR – NOTHING CAUSES IT

Group Four is characterized by the relatively small number of items thought to contribute to the development of breast cancer. These women had observed that women who did everything “right” developed it as well as women who did everything “wrong;” women who had it in their families developed it, but women who did not also suffered. They interpreted these observations from a Christian or Muslim religious framework and concluded that God’s will ultimately determined who developed breast cancer and who did not.

These women, however, also believed that God acts through worldly agents and mechanisms. The women of Group Four proposed some agents and mechanisms as mediators of God’s action, but, compared to other groups, they rated only a few of them highly in their scaled responses. When they did consider an agent or condition as a contributor to breast cancer, usually the proposed mechanisms derive from folk ideas about the body’s workings as described by Snow.

**Description of the Informants**

Table 12.1 (Appendix E) includes background information about the women of Group Four.

According to Table 12.1, seven of the 11 women in Group Four had not earned a bachelor’s degree and four had earned at least a college degree. Ten
of the women were between the ages of 40 and 60, and one was younger than age 40. So, Group Four was older than Group Three, but younger than Groups One and Two, and was relatively better educated than Group One. Nine of the 11 members of this group had been born and raised in the North. Two had been born and raised in the South, both moving north as adults to seek education and careers of their own or with husbands seeking to improve their employment chances.

The women had various occupations. Of the non-college educated women, June was a government employee, Betty and Ronette were housewives, Paula was a secretary nearly finished with her undergraduate work, Shirley worked as a data entry clerk, Janelle was a secretary, and Alicia administered a social program. Of the college educated women, Lydia was a program administrator, Connie was a college administrator, Loretta a professor, and Phyllis an insurance company executive.

This group included the only two Muslim women in the sample, Shirley and Ronette. Both had been raised as Protestants, and both had converted to Islam while in their 30's. Neither was a member of a black nationalist Muslim group (such as the Nation of Islam), but, rather, they attended services at Cleveland masjids with Muslims of various ethnic backgrounds from all over the world. Of the rest, only June did not presently belong to a church, but she considered herself a Catholic. The others were Protestants.

Five claimed Native American heritage, three were aware of Euro-American ancestors, and the rest identified themselves as African-American.
Loretta, for one, did not want to talk about "mixing" with Euro-Americans, because she found the common circumstances of this mixing, the rape and exploitation of black women, to be "negative" and she did not like to "dwell on" negative things. Connie, Phyllis, and Bonnie seemed mildly offended, though they were polite, when I asked them about their ethnic heritage and all said, "African-American" rather stiffly. Four of the women were currently married, six were formerly married, and Janelle had never been married. All but Loretta have living children.

**The Characteristics of Breast Cancer**

Lydia voiced the feelings of this group regarding breast cancer when she called it, a "mean, vicious, completely debilitating disease and also one that's usually triumphant." Cancer was a "thing" inside you," and it was "more a devil-like thing than a god-like thing." Only Bonnie, who was over age 50, non-college educated, and born in the South, called it "a sore that doesn't heal."

Others talked of secretiveness, mystery, and stigma. For example, according to Loretta, "I think after Betty Ford, women started talking about breast cancer. She did a big service, a great service to women when she came out." The sexual meaning of breast cancer is what kept women from openly discussing it before, according to this informant.

I think in our generation, my generation, talking about things that had to do with organs in the body that had to do with sexual connotations, sexual relations, we just didn't do that much . . . maybe you feel that you're losing some of your femininity or something at this time.
Also, Loretta’s use of the term, “came out,” which is usually associated with disclosing homosexuality that is heavily stigmatized in the U.S., indicates the sexual meaning and stigma associated with breast cancer.

Like most of the other women in the sample, seven women in Group Four thought that cancer was “one disease” that “attacked” different locations. Those who did not agree, had had experiences with cancer in close friends or relatives, and so they were familiar with biomedical understandings. They said that cancers that develop in different places are actually different diseases, but still, the basic pathophysiology is the same. Again, these women stressed cancer’s, and particularly breast cancer’s, mysteries. For example, Phyllis and Janelle questioned the biomedical classification of diseases called cancer. In Janelle’s words, “Cancer is just a name that they give something [when] they don’t understand what it is.”

**Pathophysiology**

The women in this group used vivid animal, plant, military, chemical, and industrial metaphors to describe the action of cancer/breast cancer. To four of the women, cancer/breast cancer is a predator that “eats.” In Paula’s words, it “eats through you like worms,” like something crawling on you, or on the inside of me, under my skin, bubbling up” (cf. Gaines 1995). To June, cancer “fusters and starts growing, it branches out.” Loretta also used a plant metaphor when she said, “It’s like a weed . . . you can kill part of it, but that other root has a life of its own.” Alicia used an industrial metaphor that evoked, for me, the image of the Cuyahoga River that snakes through Cleveland. She said, “I think it’s like a river
of poison. It just eats away, wherever it's deposited, it just eats away, it flows, and takes over." Other words used to describe cancer's pathophysiology included "multiplies," "attacks," "destroys," and "overpopulates."

**Appearance** - Women in this group imagined cancer/breast cancer as either dark-colored, red, or clear-colored. To most, it was just a "thing," a "blob," a "mass." Only Janelle imagined a known entity, an ameba, and only Shirley animated her "blob," when she said that it "foamed, bubbled, and moved."

**Metastasis** - To members of this group, cancer spread throughout the body through the bloodstream, through proximity, through the lymphatic system, and for Phyllis and Loretta, through the "air hitting it" during surgery. Underlining the relationship between God and breast cancer, Janelle linked metastasis to God's direction.

It's like a snowball or like a tree branch that spread out. It gets whatever nourishment it needs to grow and those branches branch out and hook onto whatever other part of your body it can or wants to. It goes where God tells it to go.

It just sends little [shoots] all over the place. . . to every single part of the body. . . when it gets there it homes in on what it's looking for. . . . It knows exactly what direction it's going in and all the little offshoots are just little hidden agendas. . . . God has given this thing, this virus — it's his instrument to do what he wants it to do in your body. He knows that it will be an obedient instrument. . . . If He tells it to shrivel up and die after a while, it will shrivel up and die. It will do what He tells it.
Course

Half of the women in this group believed that breast cancer could be cured, and five qualified this by adding, "if caught in time." Alicia, for example, said that a woman could be cured, "if God allows it." She continued,

I think that every life that God allows has a plan that God has made for that life, and whether that life is to live two years or 102 years, He has a plan for it, but it's up to the individual to come into the knowledge of that plan and work it out.

Paula said that mortality was higher in black women because they are too busy trying to survive to pay attention to themselves. She said,

by the time she understands that she have it, she's just about dead . . . . People forget that we have blacks working on Capitol Hill, but there still a whole lot of them cleaning toilets and making up beds and sweeping and mopping every day for a living and they are not stupid. They can see they're just like those that were slaves. . . . you don't take that time, you don't even think of it in terms of yourself -- you're living day to day.

Though the majority of the members of this group emphasized that they would want the "best" biomedical treatment and the "best" information for themselves or their loved ones if they suffered from this disease, they also emphasized the importance of support groups and prayer in a woman's treatment. The women also discussed the proper attitude to take while suffering from breast cancer. Janelle stated that "mind over matter" was critical:

Probably the weaker you are, the quicker your death. A weak person gives into it . . . . Whereas a strong person, from the day they hear the diagnosis, they are determined to beat this disease and even if you don't beat it, that strong mind prolongs that life and prolongs it as a productive life, not a fade away kind of thing.

Paula expressed the theme of "mind over matter" from a religious perspective:
I have heard our own pastor say you have to 'rebuke the devil'. . . . Satan doesn't want you to be healed . . . he'll keep your mind fixed cause he's so ornery that you can't get rid of it, and you believe that you can't get rid of it. A lot of people believe that healing comes a lot from within, but if you have that fixation that you can't -- and that's the evil part to say that you can't, because the Bible says that I can do all things through Christ who strengthens me.

Some were leery of biomedical treatments. For example, Shirley said chemotherapy "kills them quicker than the cancer does." She said,

Cause people will go to the hospital and they'll be looking good and feeling fine and they come out of there and they're like somebody just ran over them with a diesel and it takes them days. And by the time they have that together, it's time to go have that stuff again. . . . He looked like he just came out of a torture chamber, just sick as a dog, throwing up and couldn't eat . . . .

You took those chemicals, they're saying you're cured. Well, you got them chemicals floating around in your body, cause I guarantee you, they just didn't leave. What else are those chemicals doing? If they can kill the cancer, what else are they killing in your body? . . . I guarantee you, probably about 20 years from now, they gonna pop up and go, 'Ooh, chemotherapy was the wrong thing and now it's causing this.' Sure!

**Etiology**

These women believed that whether one developed cancer was in God's control, but women were still responsible for "not helping it along" since God worked through natural agents and mechanisms. Lydia typified most members of the group. She said, "I don't think anything necessarily causes it. I think it's something that just appears. Like other cancers. You can do some things not to help it along, but I don't think you can stop it from happening."

Folk ideas we have seen earlier dominated the women's beliefs about the beginnings of cancer, assuming God has willed it to develop. Weaknesses or
impurities in the body “turn” to cancer, impurities “rot” or “fester” like an infection and become malignant, or “dormant” cancer in the body from birth is activated or “triggered.” The dominant idea is that “something” comes into the body from the outside and it either turns to cancer itself or it initiates a malignant process.

Connie compared the “moment” that cancer begins to conception. She said, “I suppose it would be the same way a baby is conceived. Something would join on to the cell and then cause it to be malignant.”

**Characteristics or Conditions of the Body**

**Family history** - To nine of the women in this group, genetic history was the main biologic factor thought to contribute to breast cancer in women. Four members of the group said family history accounted for the only systematic pattern they had observed in breast cancer’s incidence. Janelle specifically mentioned “this gene thing,” referring to BRCA1, and she connected breast cancer to female family history, that is, whether female relatives had developed it. Paula repeated an idea we saw earlier, that genes themselves were the actual cancer that God willed to be inside certain bodies. These genes were also passed from generation to generation, again if God willed it.

**Immune system** - Six of the women said that a poor immune system contributes to cancer. Several used the word “prone” to describe those most susceptible. They connected this proneness to the strength of the immune system. According to Lydia, “… any weakening of the immune system will make you susceptible to the changes that cause any kind of cancer.” Only Loretta connected the strength of the immune system to maternal nutrition during
gestation. Again, the immune system seemed to operate by fighting off threats to bodily health and eliminating them from the body, rather than by destroying invaders.

**Imbalance in the body** - Nine of 11 women agreed that imbalance in the body can be related to breast cancer development. Most referred to "hormonal imbalances" or "chemical imbalances," referring to ideas about the correct proportions of substances that must be present to have a well-functioning body. Some mentioned a "balanced" mental state or balance and moderation in the diet. June, however, added a new idea: organs had to be placed correctly in the body or else the body was "out of balance." This idea came from personal worries that followed her own hysterectomy. She feared that having lost her uterus, the rest of her organs were "out of place," and thus, her body was not balanced.

**Clogged-up body** - Though half the women mentioned a flowing fluids conceptualization of the body in their responses, only three rated a clogged-up body as risky for breast cancer to any degree. The spontaneous comments, however, reveal that this was part of the women's model of breast cancer. For example, Bonnie, referring to the constipation she suffered, said, "If all the waste isn't coming out, then it's going somewhere, and if it has to stay there and it's causing a problem, stopping stuff up." Lydia said,

> I do have some issues with impurities being in your body. . . . how certain foods will develop smells or you can have like foul smells based on eating certain foods, which to me shows that that food has become putrid. It's like milk is not something I can digest and if I drink milk, the odor will be so horrible and I know that it's not a good thing for me and I actually can feel it ferment
inside and I would want to cleanse myself, my colon, because I believe that if certain things don't move through your system, they can stay there and putrefy and [lead to cancer].

Female bodies - Six of the women in this group thought breast cancer was related to female hormones, again because of the changes hormones produce. This belief was rooted in the women's experience of their own hormonal changes during puberty, menstrual cycles, reproduction, and menopause. At all these times, breasts change, they swell, they are more or less tender. For example, Janelle said, "It's [breast cancer] a hormonal thing. It probably begins during menstruation 'cause it can hide, cause there's so much going on within your body, you put everything off." She also thought that a female researcher would find in the future that the menstrual period is the time of cancer onset, because only a female researcher would take the effects of menstruation on the body seriously.

Female breasts were thought to be good feeding grounds for a predator such as cancer. Several women said that breasts were warm, fat, and soft. As Ronette said, "Babies and men love them, so cancer loves them, too." Only two women mentioned breasts' special sensitivity, and Alicia talked about the changes breasts go through, changes that increase their vulnerability. She said, 

Probably because of its changes. It changes so much . . . . They change during puberty, then they change again when you get pregnant, and then after that, they change again, and then when you go through the change, they change again. Good grief! They change every time you turn around.
**Aging** - Seven of the women thought that aging increased one's risk, revealing a conception of aging as deterioration. Loretta thought that perhaps with age,

Maybe genes begin to mature and grow like everything else or get old. Some controlling ones tend to die off and the bad ones are able to take over . . . like all of us. Our muscles tend to get weak and things of this type so maybe some of the things from our youth begin to leave us and as we get older these other bad elements are able then to move out.

**African-American bodies** - Most of the women in this group were not impressed with epidemiological studies that found differences in black and white subjects, or with any epidemiological studies in general. Several questioned the basis of racially divided samples. For example, Loretta, once she got over her initial reluctance to talk about ethnic mixing, said,

The African-American . . . was so mixed up in heritage. Some of us elect to say that it's not there, but just look at our families, etc. They range from blue-eyed blondes to very, very dark-skinned persons. It's really hard to say a particular race of people, unless you can prove it came from heredity of some sort, and then our foreparents were so mixed up we don't know which one it came from to begin with . . . . They may have a common thread that everybody's great-great-grandmother may have been European.

**Risks to Self** - No "Body" items were considered personally risky by at least half of the women of Group Four.

**Injuries**

Six of the women thought that injuries to the breast were risky for breast cancer. Mechanisms were those mentioned previously. A few of these women thought that "if there's something there already," an injury might activate dormant cancer.
Risks to Self - Only June and Shirley thought that injuries to their breasts increased their personal risk. For example, June, like Sharon in Group Three, experienced her breasts as being “in the way” and was very aware of breast pain from bumping them since her job required physical labor.

Germs and infection

Only Ronette held that germs caused or contributed to cancer/breast cancer development.

Risks to Self - Again, only Ronette considered germs personally risky.

Sex

Women in this group also did not strongly connect “immoral” or “abnormal” sex to cancer/breast cancer. Ronette typified this tolerant attitude. Though Islam, as she understood it, taught that any activity outside of heterosexual marriage is immoral and all homosexual activity is both immoral and abnormal, Ronette does not “judge” people. She said,

If there were some lesbians here or some gay men, I would laugh and talk and chit-chat with them. Now in my heart, I would feel bad for them or sad for them because I know that God has said that they shouldn’t do that, but I also know that God is forgiving and He may want to forgive them, I don’t know. So I don’t judge people.

Four of the women with injury beliefs, however, thought that rough handling of the breasts during sex could cause injuries to the breast that might activate cancer.

No one believed that not having enough sex posed a risk for breast cancer, but Paula acknowledged that some people believed this. She suffered from clinical depression and said, “Some people will tell you, all you need is to go
get you some. Go get you a piece," referring to sex. She thought that such people could apply this theory to cancer prevention as well. Women in this group did not associate STD's, including AIDS, and breast cancer.

Risks to Self - No sexual items were rated by at least half of the members of Group Four as increasing their personal risk. Only Bonnie, who, like Winnie was very unhappily married, and Shirley, who was divorced, said that "playing with the breasts" or "rough sex" increased their personal risk.

Reproduction

Breastfeeding - Women of this group did not tend to think that reproduction, breastfeeding, or not breastfeeding had much to do with breast cancer. Bonnie expressed the view of many when she questioned how the timing of births could have anything to do with breast cancer. She said, "I've heard that theory that women who don't have children by the time they're 30, they're more prone to get breast cancer. What does that have to do with anything?" Lydia, for example, agreed. She said,

I've heard things that in terms of the body and having children later and hormones and getting mixed up . . . I think that if the hormones were never stimulated for childbirth, then why wouldn't the body stay the same as it was, even though, yes, our bodies were made to reproduce, all of our bodies don't reproduce, and everyone who can't does not get cancer.

Childbearing - Five of the women, however, did think that having children too early "before the body is developed" was risky.

Risks to Self - No reproductive items were rated by at least half of the members of Group Four as increasing their personal risk.
Natural Energy Forces

**Sunlight** - Eight of the women did not associate sunlight and breast cancer. In another example of attributing risk of breast cancer to anything that aroused anxiety or discomfort in any way, Loretta moderately agreed that sunlight could contribute to breast cancer because she “couldn’t stand to be too hot.”

**Radiation** - As in other groups, radiation was frightening to the women in this group, but, again, they tended to rate all risks lower than other groups. Lydia observed,

In Harrisburg, Pennsylvania (site of the Three Mile Island nuclear power plant accident) when I was a flight attendant, we were doing a Cuban refugee airlift and we were there for some time and we were very concerned because, 1) they use a lot of radiation for - even the floors in the bathrooms were heated and a lot of unnecessary radiation was used cause they had it, but I saw more obese people, more unattractive people and more ill-looking people than I've ever seen in my life in one place [in Harrisburg]. . . . I'm talking about extreme obesity, too. We were all noticing that and they were wearing t-shirts that said, ‘Hell, no, we won't glow.' Get me out of there! It's scary -- I wouldn't want to live there.

**Microwaves** - Only Ronette thought that microwaves were associated with breast cancer causation. She said, “Before microwave ovens were the big rage, people were getting cancer and breast cancer, but I wouldn't put it past making it worse . . . . I just don't understand how it works.” Her association of microwaves and radiation is apparent in the following statement that includes a popular notion of the effects of radiation that was written on the t-shirts in Harrisburg: “… I always tease [my] kids and tell them they're gonna glow in the dark if they keep popping everything in the microwave.” She locates the source
of these fears in "something I probably saw on TV . . . just those waves, and
when what happens if you put the aluminum foil in there and sparks jump off it.
It's just strange and something you don't understand."

**Electrical power lines and appliances** - Only Shirley, Lydia and Ronette
related breast cancer and electrical power lines or appliances.

**Lightning** - No one linked lightning and breast cancer.

**Risks to Self** - No “Natural Forces” items were rated by at least half of the
women in Group Four as increasing their personal risk.

**Synthetic Chemicals**

**Hair dye** - Loretta, Shirley, and Janelle connected hair dyes and breast
cancer. Loretta repeated folk notions about the body when she said hair dye
represented “chemicals getting into the skin and into the bloodstream,” and said,
“I can't see how you put something on your head how it doesn't affect inside your
body.” Shirley had been a cosmetology instructor and her experience of hair dye
also made her fearful of its effects. She recalled,

Some of those dyes are real treacherous. They can put your eye
out, a little drop and you'll be blind and fumes. If this is seeping
into your pores -- which anything that you put onto your scalp is
gonna seep into your skin.

**Pesticides and chemicals in the environment** - Phyllis summed up the
feelings of all the women in this group and those of most of the women in the
sample. She said, “We live in a processed society - we are more prone to get
things because of our long term exposure to chemicals.”

**Food additives** - All the women worried about chemicals in food. Again,
meat, particularly red meat, was a primary source of concern. Ronette, a
Muslim, wanted to eat only *halal* meat that was ritually killed and certified as "natural," (though she doubted that this was really true). This meat was too expensive for her, however, and she worried about the meat that she could afford. She said, "They want the animals to be bigger and juicier and better so whatever it is they're putting in the animal or in his food has to have some effect on us..." Her husband teaches a class of 8th graders. "He said the breasts and the behinds that's on those girls is just unreal! And they're only in 8th grade. It's something in the food or the water."

**Risks to Self** - The "Synthetic Chemicals" category contained the most items deemed personally risky by the women of Group Four. The women rated pesticides (63.6%), food additives (72.7%), and chemicals in cleaning supplies (54.5%) as personally risky.

**Lifestyle**

**Diet** - In contrast to other groups, only seven of the women in this group thought that diet contributed to breast cancer. As in other groups, however, for those who do connect diet and breast cancer, red meat is the primary culprit. Again, the problem with red meat is that it "sits in my stomach," in June's words, and that it contains harmful chemicals. Greasy and fatty foods were other risky items. Paula expressed the folk theory found by Snow about combinations of foods. She said, "We don't know what we're consuming." Some foods don't mix. "When some stuff mixed together, it explodes. So if you eating something like that then that's what could possibly result."
Caffeine - Caffeine was not considered risky by the majority of the women.

Tobacco products - Nine women associated smoking cigarettes with breast cancer. Loretta said, "I know there's no way they could ever clean tobacco. I don't know how people could ever smoke that stuff, cause I grew up in that and that's the nastiest stuff in the world." She had worked as a "hander and a looper" on tobacco farms as a child, and said tobacco leaves are coated with a gum-like substance that got on your hands. "You'd spend the whole summer with green hands and nails."

Alcohol - All the women associated excessively drinking alcohol with breast cancer. As Paula said, "Excessive alcohol use tears down the system," but she qualified her response by saying, "...[but] people been drinking wine since Moses."

Exercise - Only Bonnie and June thought that lack of exercise increased one's risk of breast cancer.

Risks to Self - Again, the women of Group Four rated no items in the "Lifestyle" category as increasing their personal risk.

Stress

Women who belonged to this group usually spoke of stress as anxiety, and, though it was held to contribute moderately to cancer development, it was not seen to be as important as it was to other women. For example, Paula said that having a lot of stress and not talking about it ("bottling feelings") contributes to breast cancer progression, but only "if you already have it." Expressing the
folk theory that “open” bodies allow harmful agents to enter the body and adding the new idea that stress opens the body to impurities, she said, “I think cancer’s floating around out there, and if you’re stressed out, you’re opened up.”

Connie said, “The mind controls the body – maybe this causes it.” She associated “keeping one’s feelings bottled in” with stress, and thought that this was a contributor to breast cancer, though she did not articulate a mechanism. Connie and Bonnie also agreed with the theory that negative thinking contributed to breast cancer. Connie expressed a common theme in Western ethnopsychology, “What you think many times is what you are.” In other words, if one thinks that one will develop breast cancer, the thought “will impact on your life. . . the mind causes a lot that goes on in your body.” Bonnie said, “You draw those things to you, if you think about it and dwell on it, you draw those kind of negative things.” Phyllis disagreed that there was any relationship between negative thinking and cancer/breast cancer. She said, “As many people as I know who think negatively, they’d all be dead.”

Loretta, on the other hand, understood the stress-mind-body connection as influencing health-related behavior when discussing the relationship between “negative thinking” and breast cancer:

Sometimes our mental state can cause certain things, I believe to happen to us physically and because we consciously or unconsciously may eat foods that may not be good for us physically or some of our actions.

Risks to Self - These women did not rate any items in the “Stress” category as increasing their personal risk.
Biomedical Interventions

**X-rays and mammograms** - As with other groups, x-rays were feared by seven of the women because of the radiation involved and the possibility of long-term effects. Regarding X-rays, Paula said,

\[ \ldots \] I think it's how many and how susceptible you are to cancer. They say you have hidden genes so you don't realize that you have cancer till you 40 \ldots the x-rays that you have for your kidney condition could have an effect on the cancer that is there that is unseen.

Janelle also talked about the dangers of the body being open. She said that x-rays could "open your pores and let it [cancer] in." Six of the women also feared mammograms primarily because of the radiation, but for a few, the "mashing" was cause for concern.

**Medications** - Half the women thought that taking too many medications could cause breast cancer. Loretta said that doctors experimented on her husband, echoing a common charge of African-Americans (e.g., Turner 1993). He died of prostate cancer but he also suffered from migraines throughout his life. She said the doctors gave him too many medications and thought that this may have contributed to his malignancy.

**Breast implants, birth control pills, and hormone replacement therapy** - Only Alicia did not connect breast implants and breast cancer. Ideas about mechanisms centered again on the media reports of silicone leakage from the implants into the rest of the body. Seven women thought that birth control pills were risky, and six thought the same of hormone replacement therapy. For example, Shirley disparaged what she perceived to be the biomedical tendency
to medicalize natural processes. "We turn everything into a disease like pregnancy, menstruation." Lydia agreed, saying that the fact that women with a history of breast cancer are asked not to use hormone replacement therapy "indicates that there is a connection."

**Surgery** - Janelle, Connie, and Margaret agreed that "opening up a body" during surgery could contribute to the development of breast cancer.

**Abortions** - Only June and Bonnie connected abortions to breast cancer. To Paula, who had had several abortions, they were "just the obvious solution to any [unwanted] pregnancy."

**Risks to Self** - No "Biomedical Interventions" items were deemed personally risky by these women.

**Spiritual**

**God’s will and punishment** - The notion that there is an appointed time for each individual's death was particularly apparent in this group of women, but, again, relatively few accepted the idea that breast cancer was a punishment for sins. For example, Paula said, "I think there's a reason for everything including illness and death whether we understand it and can accept it at the time these things happen in our lives or not . . . God has a hand in everything." Alicia added,

Some people think that God give us diseases by punishment. I don’t believe that, however, I do believe that God allows stuff. I believe that we all are going to die one of these days, and I believe in Proverbs that says that there’s an appointed time for everything . . . And I believe that there’s an appointed time for life and death to come on and that no matter what you are, and who you are, no matter whether you know Christ or not, that your
time will come and the Lord will allow Satan to pull you down in any way that he can – whether it's cancer or AIDS.

Ronette feared air travel, but went by plane to a conference by telling herself, “You are a Muslim, you fear nothing but Allah, so what is your problem?’ If it’s meant for me to die in an airplane, there’s nothing I can do about it. So it was ok.”

She continued to talk about Islamic ideas about using prayer to cope with specific anxieties:

. . . there’s certain Islamic things you can do, like there’s certain prayers for not getting stuff that you can do and fasting and stuff . . . but that doesn’t necessarily mean that you’re not gonna get it . . . Muslims pray five times a day and each section that you do from standing to the floor and back up is one rakat. Like the morning prayer is two rakats. But if there are certain things that you’re trying to do or pray about or get strength about or whatever, you look it up or ask different people, or read, and you find out if you make a salah of eight rakats . . . it might help you . . . [But] we got to know that sometimes what you praying for, ‘No’ is the answer. And if it’s meant for me to have cancer and I’m going to have cancer, then no amount of prayers or whatever is gonna stop that, but you can still try.

Loretta said that women should maintain healthy habits, but after that, “we just have to put it in God’s hands.” Regarding God’s will, Bonnie said simply, “I guess if He didn’t want you to have it, you wouldn’t have it, would you?”

Seven of the women in Group Four dismissed the notion that cancer/breast cancer was a punishment from God. As Phyllis said, “Good, good, good people suffer,” and Loretta said, “I believe that the Lord, the one I serve, is a merciful God, and so therefore, I don’t believe in this. There may be a reason that we suffer these illnesses, but I don’t think it’s sin.” A few, however, included punishment for sins as a possibility. For example, Ronette said, “Things happen
for different reasons. Somebody's cancer might be a punishment to them for sins and somebody else's might not." Lydia did not think that many sexual acts were immoral, except "sex with a child." For that act, she said, "... your body parts should fall off. God will punish you." And, according to Janelle,

I'm not saying that only bad people get it... I've known good people that have died with cancer, but they were good when I knew them. I don't know what happened in their life. They're paying for something -- maybe the sins of the father... God will get his revenge. ... I think people who suffer are suffering for a reason. He has a reason for everything He does. You're either suffering because you need to be stronger after this suffering, you're either suffering because you need to pay penance, you're either suffering because you have cheated God so many times, in some many ways and gotten away with it, you thought. But you're paying God for something. Although we have Jesus, I still believe God gets his revenge. And I really think He puts it on people who overlook Jesus.

**Luck** — Unlike previous groups, some women held a secular notion of luck along with the spiritual/religious idea of God's will and God's plan for individuals. Phyllis said, "When the dice are rolled, your number is up." Others, such as Loretta, Connie, and Shirley used phrases like, "Cancer is just the luck of the draw." Some, including Lydia, Janelle, Alicia and Ronette, dismissed a notion of random luck since they believed everything was controlled by God, and there was no randomness in the universe at all.

**Devil** — Ideas about the devil and his relationship to breast cancer development varied. Alicia said, "The Bible tells me that Satan is the prince of the air. Everything around you, he's in control of it. And I believe that. I see too much ugly stuff around me. I gotta believe that." She continued, "I think it's in
the hands of Satan and I think he chooses [who is going to get it].” But the Holy
Spirit was a stronger, countervailing power.

The only thing that we have is more power living in us, and if
indeed, we belong to God, then because we have more power,
that power that's the Holy Spirit, we are able to combat some
things that Satan puts in our way as we walk through this life . . . .
I'm not saying we have the power to ward off [cancer], because
God -- having all power -- can allow. . . .

Janelle said, “The devil doesn't have the power to give us evil things. He
makes us do evil.” Paula said,

I don't think He has the power to create whatever the cancer is. . . .
. It might be a few somethings that got mixed up together to make
that something.”

Phyllis echoed the idea that if there was a God, there must be a devil, and said,
that if God could will cancer for someone, then the devil could, too.” According
to her, “That's what it's all about. It's about good against evil.”

In Shirley and Ronette's understanding of Islamic teachings, the devil had
similar powers. God allows the devil (again gendered as male) to suggest or to
have someone else suggest that a person “do evil.” So, to them, the devil does
“cause cancer in a roundabout way” because of his power to suggest. Ronette
also mentioned the Islamic concept of jinns or evil spirits, though she said there
were “good” jinns as well. She did not understand the concept, but
acknowledged that they must exist because the Koran and Hadith (the “ways
and words of the prophet that is second to the Koran”) speaks about them.
Shirley believed that jinns, as minions of evil, “put the opportunity there for you
and they put thoughts. . . . The thought is there in your mind, and that's where
your will comes in between right and wrong." And, "[The devil or iblis] is the master of the whole thing."

Shirley gendered the generic person and spoke of her belief in the superiority of humans in the following statements about the nature of the relationship between God, humans, other animals, and free will.

... [God] made man and gave him free will just to see what you would do. 'Cause He gave us something He created. 'Cause animals, they wake up, they eat ... they don't have any choices. But man has a choice and that's why we're superior, cause we have a choice.

Working roots - Of this group, only Shirley believed to any degree that rootworkers could cause cancer, and she was skeptical. She had, however, seen her ex-inlaws, who were from Louisiana, "do a couple of things, and it was like, whoa!" She recounted,

They didn't like my ex-sister-in-law's husband and they did something with some salt and sprinkled it behind the door and lit a black candle and do you know he would not cross. There was nothing they said to him, but he would not put his foot into my mother-in-law's house after that... I was like, okay, leave that alone. People put the suggestion in your mind... I guess if they can kill people, they can cause cancer.

Risks to Self - In contrast to holders of any Worldly group, 100% of the women in Group Four said that it might be God's will for them to develop breast cancer, and that if this was so, there was nothing they could do about it. No other items in this category were rated as increasing personal risk. Only Phyllis located some personal risk in the devil's influence and only Shirley thought that someone might work a mojo on her. She did not specify who might do this to her, but a story
about what her ex-in-laws had done to her ex-brother-in-law indicated some worry about them.

Social

**Social interaction** - No one thought that cancer was contagious, and only Ronette acknowledged a slight possibility that talking about cancer might “bring it to you,” but she was uncertain about how this could occur. She said she had heard African-Americans say, “Well, girl, hush. Talking about it, you’ll bring it on.”

**Societal factors** – In a moralistic vein, Lydia and Shirley attributed cancer to the actions of greedy people, men in particular. Lydia said,

> I think because of things that people have been willing to do, the hormones that they put in milk, that almost dying animals are allowed to be slaughtered for food, animals that can’t even stand. There is nothing that says that this meat is not okay. So those kind of things, I think contribute... I think that man has his hand in it.

Shirley feared ingredients in foods that she could not pronounce and that she did not understand. She detected a conspiracy based on ignorance, and also repeated a folk theme that excess of even good things was harmful:

> I do feel as if they feed us a lot of junk. They know we just don’t know. That’s just like the tobacco industry...and all for money. Tobacco was put on this earth, for a reason but I think when they start adding all this junk to it, they started messing it up... As usual, you get something good and you just go haywire with it. You know those Christians and their money!

Regarding incidence and mortality among African-American women,

Connie, for example, said black women have less access to medical services, and cited their treatment at the hands of some doctors. “The assumptions
doctors make when you walk in the office . . . STD's are assumed," according to Connie.

Risks to Self - No one in Group Four considered either item in the "Social" category to be personally risky.

Overall Personal Risk Perceptions

Of the women of Group Four, Bonnie, June, and Lydia considered themselves to be unequivocally at risk in their responses to the open-ended questions. Bonnie and June attributed their risk status to family history. In discussing the importance of genetics, Bonnie said, "It's just my gut feeling, that's all. In my family it [family history] has come to pass -- an aunt, a mother, a sister. So it just seems to happen." June said she comes from a "cancer family." Lydia attributed her risk to "the deal of the cards."

Connie, Janelle, Ronette, Paula, Shirley, Priscilla, and Loretta did not consider themselves to be at risk, primarily because of their lack of a family history of the disease. All acknowledged that "we are all supposedly at risk" because of the lack of definitive etiologic knowledge, but, like others, their gut feelings about themselves were that they were not going to develop breast cancer, and Alicia and Paula simply did not think about their risk status at all. For example, Janelle said, "It's just not gonna be my disease," and Paula said, "I just don't think about being sick." Ronette echoed the theme seen above that she was not at risk because she does not allow herself to "get all upset about things" and "tries not to welcome trouble." However, though their overall risk perceptions varied, when specifically asked, if God willed it, all were at risk.
SUMMARY

Group Four associated only 13 items in eight categories with breast cancer risk. No items in the Injuries, Germs, or Reproduction categories were thought to pose risks. The categories and items are: 1) Body - family history, imbalance in the body; 2) Sex - STD's; 3) Energy forces - radiation; 4) Synthetic chemicals - pesticides, food additives, chemicals in the environment, chemicals in the water; 5) Lifestyle - diet, tobacco products; 6) Stress - stress; 7) Biomedical interventions - breast implants; and 8) Spiritual agents - God's will.
CHAPTER XIII
DIVINE CAUSATION

GROUP FIVE – THE ANYTHING IS POSSIBLE TYPE

Women in Group Five also held that a Divine agent, the exercise of God's will, was the ultimate cause of breast cancer. They were similar to the women of Group One in the worldly agents that mediated this relationship, though they also differed on several topics. Most of their ideas derived from the folk tradition and were quite moralistic, though again, there were also many causal agents thought to be beyond any individual's control. Again, as did all the women, they actively created their knowledge by integrating or rejecting new ideas into what they already knew on the basis of their experience and their gut feelings.

Description of the Informants

Table 13.1 (Appendix E) includes background information on the five women in Group Five.
Most of these women are between the ages of 30 and 50, but four of five do not have college educations. Nora, a nurse and the only member of this group with a college degree, was raised by her grandmother and often explicitly rejected her biomedical" knowledge to tell me how she "really felt" about breast cancer. All were born and raised in the North. Phoebe and Estelle listed their Euro-American heritage as well as African-American and Native American ancestry, but the others only mentioned African-American and Native American heritage.

Nora worked as a health educator in breast cancer and cervical cancer with primarily African-American women. Barbara and Estelle worked as secretaries, and Estelle had nearly completed her bachelor's degree. Rhonda was unemployed and living on welfare, but she had worked for years as a nurse's assistant. She says that she was fired from her last job because she tried to organize wage protests and had also objected her to racist treatment by some patients. Phoebe lived in public housing and sometimes cleaned for CMHA.

This group differs from others in that the majority of its members are not religiously affiliated. All professed to be Christians, but religious activities were only important to Nora and Estelle, both of whom were Baptists. Church and faith were of paramount importance to Estelle, in particular, though Nora often responded from a Protestant perspective.

Nora was currently married, Estelle and Rhonda were divorced, Phoebe had been widowed and divorced, and Barbara had never married. Phoebe,
Estelle, and Rhonda had children, and Nora said she "took credit for" raising her husband's sons.

*The Characteristics of Breast Cancer*

The women of this group shared the ideas about the character of cancer/breast cancer that we have seen above. They talked about its devastation, and considered it to be one disease in terms of its process, though both Estelle and Nora knew that from a biomedical perspective, cancer was many diseases. Estelle said that her mother's cancer, multiple myeloma, had "no tumor . . . there was no growth that could be removed easily. There was a problem with the way the bone marrow made the blood." She, however, politely rejected biomedical nosology, echoing the suspicion that cancer was a catch-all category for poorly understood diseases:

I hate to cast aspersions on the medical community, but I think there's still some confusion as to what is cancer. Cancer may be the wrong term for what my mother had, cause that was more of a systemic kind of thing as opposed to a localized growth . . . . There's obviously something about it that is close enough to -- probably the way the cells more or less mutate and reproduce themselves that allows the scientific community to group it together in cancers . . . . It's a gray area.

Barbara described breast cancer's trickster character:

. . . it grew into that lump because there are already pockets of lumps and fat there so it took on the identity of one. I think it took on the identity and that's why they just don't see it until it's already a lump that feels like a lump that we already have.

To Nora, the breast was a particularly vicious site because of the meaning of female breasts in U.S. culture. She said, "It's undercover . . . . It just seems to be an intimate kind of cancer, very close to the heart, close to the bosom, literally
breasts represent our womanhood." She agreed with Marva, a member of the Buppie group who was also a nurse, in calling cancer an "opportunist.

Cancer lay in wait until conditions were right or something happened to activate it, and then it struck.

Pathophysiology

Members of this group used animal, machine, and computer predator metaphors, including insects, arachnids, microorganisms, Pac-Man, weeds, and vacuum cleaners to describe cancer/breast cancer's pathophysiology. Barbara imagined a "nasty little bug, it looks like a little centipede," that "travels" from one reproductive organ to another, including the breasts. Nora thought of cancer as a "vacuum cleaner that just kind of sucked up everything and destroyed it until there was nothing left," and as a "spider, because they kill their prey, they go back later and they kind of wrap it up and they'll finish it off later."

To the members of this group, cancer/breast cancer works by attacking, destroying, eating, abnormally reproducing, growing, and taking over the body, the same mechanisms described by other groups. Nora elaborated the predator model: "I just think it's a cell that's absolutely out of control. Its survival instinct is above and beyond anything that we could ever reproduce or imagine."

Phoebe differentiated between a harmless breast knot and a malignant tumor because a knot "is just there," it might grow bigger, but it does not eat.

According to Rhonda, a cancer "germ," which is any carcinogenic agent, enters the body, gets into the bloodstream, and,

when it gets in there, it just destroy. But he lives off of the good germs . . . that's how that bad little thing lives — by getting into
something that's good and fresh and then it turns everything bad cause he's bad . . . he just tore you up. It's just a dirty old germ.

I think it would feel like something crawling in you. You might think it's like a little bug or something and you hit it and there's nothing there but what it is but it's messing up your veins and your lungs . . .

Estelle said,

. . . there's a cell that reproduces incorrectly . . . and then it keeps going and sometimes the growth rate of that unhealthy cell is faster than the normal cells . . . They kind of get sucked up . . . kind of like weeds. The energy and the nutrients and all the rest that would go to nurture the normal stuff somehow gets absorbed by those irregular cells . . . The disease process is expanding -- and they kind of overshadow them, like the weeds that you can't get out.

**Appearance** - The women in this group imagined cancer as dark, red, or white and pus-colored. To Estelle, it was also lumpy, and irregularly shaped.

Some women in this group also described cancer's appearance metaphorically, rather than objectively. For example, cancer appeared "dark and black like gangrene," according to Rhonda, or "like a spider in a web," according to Nora.

**Metastasis** - Women in this group maintained, as did others, that weak areas in the body were vulnerable to the malignant process, and that once this process had begun anywhere in the body, these weaknesses would eventually either be consumed or they would activate, and become cancers themselves.

Nora often rejected her biomedical training regarding cancer's etiology and pathophysiology. She said, "Personally, I don't think it spreads, which goes against everything I've been taught." She continued, "All the right ingredients are there from birth and while we're young and healthy and our resistance is high . . .
inborn -- it's there from the very beginning." If the body's "resistance is high," the dormant cancer will not activate.

Barbara (characteristically) gendered cancer/breast cancer's spread by stating,

I think cancer works on females like men work on us. They find our Achilles heels and weaknesses and they center right in on it and WHAM! . . . . Maybe it travels around our bodies and it's looking for something that's just as weak as the fat in our breasts. It looks for a similar area.

When the cancer "finds" a weakness, it says, "Oh, I'm hungry -- it's like a little Pac-man (eating sounds)." Estelle said that cancer/breast cancer spread to other organs because "the immune system is compromised by foreign bodies. That compromise allows it to spread" by arising in other "weak" areas.

Course

As in other groups, the women in this group talked of the devastating consequences of breast cancer. All the women mentioned loss of the breast and the diminution of the body as part of the course of breast cancer. Phoebe compared its course to that of AIDS. "Eating at your inside makes you smaller, thinner. Just like AIDS -- makes you ugly and small and little and dried up." No one maintained that there was a cure for cancer/breast cancer yet, implying that someday "a" cure would be developed. Barbara, Estelle, and Nora stated that some women could be cured, but that recurrence was always possible.

According to Barbara, the course of the disease depended on the inherent strength of a woman's body. Her ideas recall Snow's findings of the importance of blood in the African-American ethnomedical tradition, though
Barbara was the only woman who spoke explicitly about the importance of blood as the source and indicator of the strength of the body. To her, medical interventions were of little significance:

Through no help from the doctors, black women, it's either our good blood that's going to keep us alive or it's not . . . . Because you notice some women who get breast cancer and they're okay and they're not sick and some of them get really, really sick . . . . I think it has a lot to do with our blood and how our blood fights off these diseases. Some of us just don't have strong enough blood to do it.

Though to the women in this group, women had limited control over the development of breast cancer, there was much they could and should do to affect the course of the disease even if they could not affect the eventual outcome. For example, all the women stressed that early detection could affect the course of breast cancer. To this group, too, "moral medicine" was important: diet, stress reduction, and, above all, relinquishing control to God could extend and improve one's quality of life.

Other measures that could affect the course of breast cancer included support groups, counseling, prayer, natural medicines (e.g., in Rhonda's terms, "things from the ground, natural earth"), and moral improvement, (e.g., eliminating "bad habits" such as gossiping). Estelle repeated this faith in "natural" treatment, and said,

There's a part of me that is convinced that somewhere there is some natural process -- whether it's an extract of something, a tea or something -- juniper berries -- I don't know. But for most things there seems to be a way that the body can heal itself . . . .

Estelle also maintained that being in "a right relationship with God" was important. She spoke of her mother's cancer:
I knew that God had the power to take care of her body, but it was up to her to move back to Him, and once my mother did that, there was a peace that came over her that somehow made her physical discomfort more tolerable.

Nora maintained that a woman diagnosed with breast cancer should "include all the things that she enjoys in life, with a twist -- if she likes plays, instead of going downtown, she has to go to Chicago . . . [She should alter her life] in a more positive, a bigger, playful kind of way."

**Etiology**

In contrast to the women of Group Four, to the members of Group Five, nearly everything caused cancer/breast cancer. Within their framework of God's will as the ultimate cause, informants in this group often responded that "anything is possible" when presented with items possibly related to breast cancer development, since the cause(s) are unknown. In general, anything that could cause changes could contribute to cancer/breast cancer.

Women in Group Five also were more likely to think that many of the worldly causal agents were outside an individual's control than women in Groups One, Two, Three, and Four. Some of their statements emphasized personal health habits: women could and "should," maintain healthy habits and avoid some obvious dangers, and these efforts might diminish their vulnerability. However, there were so many elements in the world in general that could cause changes that might result in breast cancer, and so many dangers to and abuses of women's bodies in particular, that women could exercise relatively little control. Furthermore, if there were measures that could be taken, they were difficult or impossible for many women. As Barbara said, "I don't think your vices
has anything to do with it. Again, you can lead a perfectly normal life and still get breast cancer and still get hit by a bus."

Women in this group also used both biomedical and folk terms to describe malignant changes at the cellular level. Cells "mutate," a biomedical term, or something "turns," a folk idea discussed previously; "good" cells or body tissues "weaken," and turn to "bad" cells and become cancer. Barbara, Estelle, Phoebe, and Rhonda used the term "cancer germ," a term discussed previously. In this model, the "cancer germ" represents one or both of two ideas. It is: 1) an agent that comes into the body from any number of outside sources. When such agents enter the body, they may travel through the bloodstream and cause cells or tissue to "turn;" or 2) the tumor itself that is initiated by such an agent.

Characteristics or Conditions of the Body

Family history - Though all the women in this group agreed that family history was an important determinant of whether a woman developed breast cancer or not, only Nora spontaneously mentioned it in contrast to women of other groups. No one said it was a sufficient cause of cancer/breast cancer. In Estelle's words, "If it's genetic, generally there's gonna have to be something that I do to kick it in." Estelle also invoked the concept of "genetic weakness," a hierarchical method of classifying people in the U.S. derived from English and German racial ideas (e.g., Gaines 1992a).

Nora, Rhonda, Barbara, and Estelle associated their genetic inheritance with their female line, though Barbara maintained that a woman got her "masculine" traits, such as size and strength, from her father and grandfather.
Estelle said, "I see a direct connection between my mother and ourselves [her sister and herself]." According to her, since her mother and probably her maternal grandmother had fibroid tumors, she and her sister have them, too. All maintained that multiple traits, including physical, emotional, personality, and spiritual characteristics, were inherited from multiple ancestors. For example, Estelle called inheritance, "that genetic soup," indicating the numerous ingredients in the composition of a person that were passed down from generation to generation.

Rhonda held that one’s ancestors’ bodies are incorporated in one’s own body through genes, and that genes are passed from mother to baby through the umbilical cord. “There’s always an attachment of someone’s genes from your great grandmother, her mother, on down . . . so you always carrying a part of your ancestors’ genes in . . . your body somehow,” repeating the notion of a corporate body.

Immune system - Again, an immune system that has “broken down” mediates between cancer-causing agents and cancer/breast cancer development, according to all the women in this group. According to Barbara, the capacity of the immune system to resist or fight off (rather than destroy) diseases or disease-causing agents is inborn. She explicitly discussed ideas that Snow found in her informants about the qualities of blood. According to Barbara, people are either “good” or “bad” blood, meaning they are strong and do not get sick often, or they are weak, and, “Something’s always wrong.” She said, “I think your immune system is made up of all your blood cells, your white
ones, your red ones, your arteries, and your fat cells.” She contradicted herself later, but in response to a question about her understanding of the immune system she replied, “I don’t think it’s mind over matter. I don’t think your brain has anything to do with it. . . . It’s the way you were born.” In contrast, Estelle maintained that “there was some emotional component that lowers our resistance to certain diseases.” More individual control was both possible and desirable, in her opinion.

Barbara’s immune system was not strictly genetically determined, but she maintained that specific “weaknesses” skipped a generation; that is, one’s weaknesses would be the same as those of a grandmother, again linking women to their maternal line. She and Rhonda also felt that a mother’s eating and drinking habits can influence the inherent strength or weakness of a body.

Imbalance in the body - Imbalance in the body posed risks according to all the women, but the phrase meant different things to the women in this group. Estelle used the phrase, “chemical imbalance” and attributed her mother’s death to an electrolyte imbalance, rather than to the myeloma that underlay it. Barbara repeated the theme found in Snow that well-being depended on maintaining both spiritual and physical health. Barbara conceptualized these two aspects of a person as an “inner,” or spiritual, self and an “outer,” or physical self. If they both are in good condition, a balance between them is achieved. If a person does not attend to either of these selves, imbalance, and eventually ill-health, can result. She said (somewhat contradicting her statement above that “vices don’t have too much to do with it”),

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There's an Earth, Wind, and Fire song . . . 'That's the Way of the World.' There's an outer self and an inner self. Unless the outer self and the inner self are in sync together you're going to be off. So, it has to be balanced -- meaning your physical and your spiritual. If one of them gets out of sync, the other one is going to blow your whole balance . . . . Like the way you feel about yourself spiritually affects your physical appearance and your outlook on the rest of the world . . . . and . . . it has to do with your lifestyle, the way you live.

**Clogged-up body** - Some informants in this group held the plumbing system model of the body discussed above, and said that the body needed to be periodically "cleansed." Being clogged up (meaning constipation) represented a health risk to Rhonda, Phoebe, and Barbara. Barbara said, "If you're not eating right or taking care of yourself or getting those pipes unclogged, you're bound to break out in hives or that headache may follow you around for a couple more days than you want it to." Nora said she had not heard of this theory, but it made intuitive sense to her, particularly regarding menstruation. To her, the cessation of menstrual "cleansing and shedding" with menopause could at least partially account for the relationship between age and breast cancer development.

**Female bodies** - Members of this group shared ideas with other groups about the characteristics of female bodies that may facilitate the development of breast cancer. Estelle's experience with breastfeeding, breast infections, and "aggravation" from "hormonal imbalances" taught her that breasts can be troublesome and that they "could be a weak area." Barbara agreed that breasts were weak because they were made of fat and because chemicals from outside the body remained in them, reiterating both the lowly status of fat in the U.S., the cleansing theory of health maintenance, and the special characteristics of

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breasts that make them vulnerable. When asked why cancer might develop in a breast in particular, she said,

Maybe because with us women all of the fat goes to two places, actually three: our thighs, our stomach, and our breasts. Why don't we have thigh cancer? . . . maybe because [the breasts are] the first place coming down, it's the first place that it sits and our intestines flush out the rest of the bad chemicals, but the most of them just sit right there.

Similar to other groups, these women maintained if natural female hormones were left alone to behave naturally, they posed no risk of breast cancer. Interfering with them by using birth control pills and hormone replacement therapy, however, represents risk. Estelle said that she had read that the hormones fed to chickens were carcinogenic, so she associated hormones and cancer, but, again, the association between female hormones and cancer/breast cancer held only if women did not leave them alone.

**Weight** - Being overweight was also considered risky by all members of this group, except Rhonda, but having big or small breasts was thought to be unrelated. Estelle attributed the risk to "carcinogens that get stored in the fat," repeating a theme found in popular media discussions of estrogen-mimicking synthetic compounds found in the environment.

**Aging** - Aging bodies were more prone to breast cancer to the members of this group, though several knew of young people who had developed cancer/breast cancer. Rhonda maintained that as bodies aged, "your body chemistry's aging," and this change in body chemistry could, for instance, precipitate a change in benign breast lumps or other body tissues that would turn them into malignant tumors. Again, stress is important in Nora's thinking. She
maintained breast cancer "happens later in our lives -- and I'm going by the
stats and not by the women that I know -- . . . because we've had all that stress
for so many years . . . ." According to her theory of aging and stress, stress
accumulates as one ages, and can lead to cancer development (See below).

African-American bodies - Only Estelle discussed African-American
bodies, but she criticized medical practices based on the color of a patient's skin
and repeated the theme that bodies are alike under the skin. She related a story
of a friend:

My black friend in Chicago, who was not aware of how much
Italian blood she had in her, almost died because the disease that
she had was misdiagnosed as sickle cell and the treatment for
sickle cell didn't work. . . . Her family . . . is pretty much convinced
that two or three of their family members died 'cause they were
misdiagnosed because they were black.

Risks to Self - The women of Group Five found several items personally
risky: poor maternal nutrition (100%), imbalance in the body (100%), being
clogged-up (60%), female hormones (72.7%), weight (excess weight, 54.5%), and
aging (54.5%).

Injuries

In contrast to Groups One and Two, the other groups who held the most
folk theories, only Phoebe thought that injuries contributed to breast cancer.
Rhonda, for example, rejected the injury theory because of her experiences
playing with her brothers as a young girl. " . . . you be playing just like a little
tomboy and you be bumped up against this and that." She did not see this play
as dangerous in any way and did not connect it to the lumps in her breasts; it
was just fun.
Risks to Self - Only Phoebe subscribed to the notion that injuries to her breasts increased her personal risk of developing breast cancer.

Germs

All the members of this group agreed that germs contributed to breast cancer. Estelle connected germs with diseases she knew to be infectious, such as colds, but, agreed that germs were a possible contributor to breast cancer. To Rhonda, germs are "terrible bad bugs" that come from dirt. She was particularly impressed with their power relative to their size because of the recent death of Judge Battisti (who ordered busing to desegregate the Cleveland public schools) from a tick-borne typhus. She said, "All he was doing was go fishing to have a nice time and now his life gone, and all cause of a little bug." News reports of a flesh-eating bacteria were also frightening to her, and also made her think of cancer.

Risks to Self - All of the women in Group Five, including Nora, the biomedical professional, agreed, at least to some degree, that their own exposure to germs increased their personal risk. Estelle, for example, said that she did not really connect cancer and germs, but, true to her membership in the Anything is Possible group, said that it was possible, and rated the item as a "3" for her personal risk.

Sex

Rhonda and Phoebe connected "immoral" or "abnormal" sexual activities with breast cancer, defined as anal and oral sex and homosexuality, though Nora had heard other women say that "too much playing with the breasts" was
causally related. [She had heard some women talk of men who had "growing
hands."] To Estelle, anything outside of marriage was "immoral," but within
marriage, "the Word (the Bible) says, 'The marriage bed is not defiled.'" To her,
this means that whatever is consensual between two partners in a heterosexual
marriage is normal, as long as it is not abusive. Barbara and Nora thought that
not enough sex might create stress that might, in turn, lead to breast cancer.
Finally, because most of these women did not attribute breast cancer to injuries,
rough sex was no more dangerous than other forms of sexual activity.

Rhonda disagreed on this point. She held that one could catch
cancer/breast cancer from anyone who had it anywhere in the body from being
in close contact with that person. The cancer could come through their pores,
through their breath, or through their body fluids. She, however, did not think
that merely playing with the breasts nor rough handling during sex was harmful.

Unlike some other informants, most of women in this group with the
exception of Phoebe did not equate AIDS and cancer. They also did not connect
sexually transmitted diseases in general to breast cancer.

Risks to Self - Though only "not enough sex" and "father or mother messed
around" were rated by over half of the women in Group Five as personally risky,
several members of this group felt anxious about various sexual activities and
experiences. Rhonda was particularly worried. She confessed that she had had
many sexual partners, behavior she considered immoral, that she had "played
rough," which could have injured her breasts, and she worried about the effects of
her parents' sexual behaviors on her body. She, in fact, was the woman who first
mentioned this item in the open-ended responses as she sought to make sense of her own cystic breasts.

**Reproduction**

**Breastfeeding** - No one maintained that breastfeeding and breast cancer were related, and no one shared the idea that milk could clog the milk ducts and rot or become infected and then turn to breast cancer. Estelle repeated the theme that natural processes could not have a causal relationship with breast cancer. “It’s [breastfeeding] too great a thing, too natural a process. No!” Nora acknowledged that not breastfeeding increased one’s risk, though she did not articulate a mechanism, but no one else agreed.

**Childbearing** - Only Nora associated any of the childbearing items with breast cancer. She knew from her biomedical education that not having children and having one’s first child after the age of 30 were considered risk factors. She said that having too many children, having children too early, and having children too close together meant “wear and tear” on a woman’s body. To her, childbirth and pregnancy signified “changes that the women’s body has to go through and readjusting,” echoing the theme that changes can be dangerous. No one explicitly mentioned the biomedical connection between the amount and the timing of exposure to estrogens and breast cancer risks, though Nora clearly knew this theory. Rhonda maintained that bearing children, at any time and in any number, was positive, life-affirming action that deserved respect and admiration; such a good and natural process was not connected with the unnatural evil of breast cancer in her thinking.
Risks to Self - Only Barbara and Nora rated any reproductive items as increasing their personal risk. Both agreed that not having children placed them at risk, and Barbara worried about not breastfeeding and bearing children too late, if she was ever to bear them. This opinion seemed to come less from awareness of biomedical risk factors, though Nora was aware of them, than from their own sense of disappointment or loss at not having children. (Nora had suffered miscarriages and Barbara had had three abortions.)

Natural Energy Forces

Sunlight - Rhonda and Nora associated exposure to sunlight with increased risk of developing breast cancer. To Rhonda, evidence of the sun's power, and thus its power to effect malignant changes, is found in cautions to avoid looking at the sun during an eclipse, and in the sun's ability to darken the skin and provide energy for factories. Nora's thinking was different, and was more biomedical, than that of women previously discussed. She maintained there may be some relationship, "only because of the ozone and exposure to radiation from the sun."

Radiation - All the women agreed that exposure to radiation caused breast cancer.

Microwaves - Barbara, Phoebe, Nora, and Rhonda maintained that microwaves, and microwave ovens were risky. Barbara said,

I just don't trust new technology. I mean right now I'm eating microwave popcorn, but this is about as close as I'm going to get to anything nuked. . . . The radiation. I read somewhere years ago that microwave ovens when they first came out they were affecting people's heart thingies [pacemakers], and I thought, that's a powerful machine.
I think of radiation as something so powerful that it changes the normal molecular structure and it keeps it from growing at its normal pace and it speeds it up and it's too much too soon. I think there's something wrong with being able to bake a cake in 35 seconds... It's not natural.

She also joked that microwaves were part of male sexual exploitation of females, reflecting her own experience with men. She said, "These manmade things... You know, they have a plan for us. They don't want us to cook; they want us to put on our red high heels and our purple dresses and go out to a bar." Nora did not think of microwaves as radiation, but she agreed that they "somehow mutate cells."

**Electrical power lines and appliances** - All maintained that electrical power lines were related to breast cancer. For example, Rhonda worried about power lines in the Flats, a riverside industrial district in Cleveland that now has many bars and neon signs. Others have told her that their cars get "little spots" on them if parked in the Flats, which they attribute to "radiation somewhere in the air" from all the factories. To Rhonda, "... that's some strong radiation! That's why I don't like to go down in the Flats." As the previous statements demonstrate, sometimes Rhonda equated electricity and radiation, and other times she differentiated them. One difference was you could see a cord with electricity. "With radiation, you don't see nothin!" To her, this invisibility makes radiation more malevolent, and if there is no cord, the force involved must be radiation.

Appliances were also seen as risky. Nora mentioned televisions, computers, metal detectors at airports, cellular phones, and electric blankets as...
possibly related to breast cancer. Rhonda will only watch television screens that
are smaller than 25 inches since she does not trust big screen sets, and she
worried about the lights in her niece’s "electric" shoes.

 Lightning - Only Barbara maintained that lightning was risky, since, to
her, lightning was electricity, and electricity was a powerful force that could effect
many changes.

 Risks to Self - At least half of the women in this group rated exposure to all
“Natural Energy Forces” items except lightning as increasing their personal risk.
(Sunlight - 50%; Radiation - 100%; Microwave ovens - 50%; Power lines - 50%;
Appliances - 100%).

 Synthetic Chemicals

 Hair chemicals - Four of the women agreed that chemicals used on hair
could be causally related to breast cancer. Estelle summed up the general ideas
of the group about hair coloring and relaxers: “I have no clue what’s in them. If
it’s enough to change the natural texture of my hair . . . , it’s got a potentially
damaging effect.” Rhonda was impressed with the power of any chemicals that
could make jet black hair turn blonde. Nora also spoke for the general
perspective of the group on nearly everything when she said, “I’m not ruling out
anything.”

 Pesticides - Pesticides were deemed very dangerous. For example,
Estelle expressed two common themes in the following statements: breast
cancer was out of one’s immediate control and anything that can cause changes
or damage something else can cause the changes that result in breast cancer.
I really don't have any control over what's in the food I eat. I'm not growing it myself, I'm not using the pesticides. I don't have a clue what's in it and if it's toxic to some other living being, then why wouldn't it at some level be toxic to me.

**Food additives** - Food additives were equally suspicious. Estelle blamed their use on greed, and maintained that only God's power could neutralize them. She said,

They're not natural. They're all chemicals and we don't know what chemicals do. We claim to be a very sophisticated society, but long-term research hasn't been done on most of this stuff because the bottom line is involved – market, longer shelf-life, so if we can use a chemical, well, okay, and if it makes kids, if there's a problem with attention deficit disorder because they had too much of it, well, we'll deal with that later, and by the time that they prove it, we will have made these many millions of dollars, and again, I don't have any control. I don't know what I'm eating. . . . I pray over it. 'Whatever is purple in here, Lord, take it away.'

Her evidence for the power of her prayer is her experience with her allergy to nuts. She used to carry antihistamines, but now she depends on God to rescue her. I asked her how this felt.

Depending on how much I ingest, it is like a toxin that will stay in my system for like 24 hours and I feel like I've been — I don't know what it's like to be poisoned, but I imagine that that's the feeling that I walk around with, and — I may just be being superstitious — I may not have ingested enough for a severe reaction — but it reverses. It's not immediate, but it reverses without the pill [antihistamine].

**Chemicals in the environment** - All agreed that chemicals in the environment and in the drinking water contributed to cancer/breast cancer. As Rhonda said, "We can't drink water, we can't hardly eat!"

**Risks to Self** - True to form, the women of Group Five rated all items in the "Synthetic Chemicals" category as increasing their personal risk. Sixty percent
found hair chemicals, 100%, pesticides, 100%, food additives, 80%, chemicals in
the environment, 100%, chemicals in the water, and 100%, chemicals in cleaning
supplies, personally risky.

Lifestyle

**Diet** - One action that women could take to strengthen their bodies and
reduce their chances of developing breast cancer was to eat healthily, according
to all the women in this group. Healthy eating entailed eating fruits and
vegetables and not ingesting a lot of caffeine, due to its association with breast
lumps. Part of healthy eating to the women in this group, however, was eating
foods without preservatives, pesticides, and other additives. They did not think
this was under many women’s control, since foods grown organically were not
available in markets near them and they were too expensive anyway. Barbara
also said, “I think people with very good diets still come down with breast
cancer.”

Estelle repeated the theme that red meat was “bad” for you because it
stayed in the system too long, but she maintained that the danger lay in the
“unhealthy things the cow may have eaten,” rather than in any inherent
characteristics of red meat itself. “… an overabundance of red meat. It takes
your system a long time to get rid of it. It kind of like hangs around so whatever
unhealthy things the cow may have eaten is stuck there festering.”

**Caffeine** - All thought that ingesting caffeine and breast cancer were
related, but all said that the quantity ingested was important. Caffeine is
considered a drug, like alcohol, which was inherently powerful and could effect
the changes that could lead to breast cancer. Unlike other women in the sample, due to her lengthy experience with breast lumps, only Rhonda explicitly connected caffeine and breast lumps, as do biomedical professionals.

**Tobacco products** - Everyone also strongly agreed that using tobacco products, particularly cigarettes, and secondhand smoke contributed to breast cancer, though no one expressed the proximity idea discussed earlier.

**Alcohol** - All the women in this group associated drinking alcohol and breast cancer. Estelle, having seen her ex-sister-in-law undergo a liver transplant because of the effects of drinking alcohol, stated that alcohol could generally debilitate the body, and weaken the immune system, allowing “anything that attacks us” to initiate cancer. According to her, with this weakened immune system, “It doesn’t even have to be a strong attack.”

**Exercise** - Only Nora knew from her biomedical background that lack of exercise was a risk factor for breast cancer, but she did not describe a mechanism. No one else connected exercise and breast cancer.

**Risks to Self** - All items in the “Lifestyle” category were deemed to increase the women’s personal risk. Diet was rated as increasing personal risk by 80% of the women, use of caffeine by 80%, use of tobacco products by 60%, exposure to secondhand smoke by 80%, use of alcohol by 60%, and lack of exercise by 80%. Estelle was least likely to agree that these items increased her risk, rating only diet and lack of exercise as possibilities. Rhonda, on the other hand, agreed or strongly agreed that her use of or exposure to all the items placed her at risk.
Stress

Stress - Stress, again, was strongly associated with breast cancer to the members of this group. To Nora, stress was a necessary catalyst for breast cancer to develop: if one lives a life with little stress, one will not develop breast cancer unless God wills it, no matter what other contributors one has been exposed to. Nora said, “I think that stress is like the light switch. It’s that dark room with all those elements, all those risks or whatever, and when you finally flick that switch, the light doesn’t come on. Instead, cancer develops.”

In contrast to the women of Group Two and Three, women in this group did not emphasize women’s responsibility to cope with their stress. Stress, in this model, seems to be more “done to” women, and is, again, somewhat out of individual control. In their view, one should try to reduce the stresses in one’s life (defined as trying to meet the demands of family and work, and as conflicts with others), by relinquishing control over events, conditions, and people. But this was difficult to do.

Though the amount and source of stress one endured was largely out of one’s control, one could try to avoid bottling feelings and negative thinking to reduce the effects of stress. For example, to Nora, “Negative thinking is just more wear and tear and creates angry feelings, makes things more difficult, creating more stress. You don’t enjoy your life – just set yourself up, I think for any disease, cancer.” As we saw earlier, for Estelle, emotions that were not vented could “lower resistance” to disease.
Barbara, who had had much "bad luck" with men, typically gendered risks to women from stress, attributing many risks to men's actions, and she differentiated between men's and women's responses. In the following statement, she combined the ideas that women are inherently weaker and more emotional than men, and the idea that stress, meaning emotional upset, frustration, tension, and anxiety, causes disease. According to her,

Stress affects us [women] differently than it affects men. . . . I think we are more prone to diseases. . . . Because we're more emotional, it would tend to affect our health more so than men because they're not emotional. They would try and forget it. They usually go out and do something physical, i.e., drink or sports or that male bonding thing where they just laugh and joke and try to forget it and deal with it that way. We get together and we cry and talk about it . . . . It affects our health cause we care too much. . . . We're damned if we do and damned if we don't.

According to her, bottling feelings could damage one's internal body, but also simply having feelings, which to her is a natural, immutable aspect of femininity, increased women's vulnerability to diseases.

Estelle agreed that "stress is very powerful," but she maintained more than others that women could "put the stress into perspective so that it doesn't impact" a person. To her, this involved submitting one's will to the will of God (akin to Nora's secular notion of giving up control over things that cannot be controlled), trusting and having faith in God, giving up negative thinking, and using the power of prayer.

In 1 Peter, it says, 'Cast your cares on him, for he cares for you.' . . . Giving up stuff we like to hold onto that's not very good for us . . . to hang onto that stuff is that God is not able to resolve it. It speaks of a lack of faith, and probably the thing that cuts our blessings off is lack of faith . . . Negative thinking can have some
physical manifestations. Now whether it can be as serious as cancer, I don't know. Maybe it can be.

Rhonda agreed that stressful situations, such as her own unemployment, could overwhelm the body and weaken it to the point where cancer/breast cancer might develop. According to her, “The body can only take so much.” Rhonda noted the adverse effects of Snow’s worriation: You can bring something on yourself by worrying so much . . . your mind can play tricks on you and make things occur when they don’t have to, all because you think of it. The mind is a very powerful thing.” This idea seems slightly different than the “mind over matter” (body) idea discussed above. “Mind,” as well as cancer itself, can be a trickster, out of “self’s” control: if mind merely thinks about a negative event, the thought can produce the event in a somewhat magical way. The self must be vigilant, it must outwit mind, and defend itself against these dangerous thoughts by blocking their occurrence.

Risks to Self - Women in Group Five rated all items in the “Stress” category, stress (60%), bottling-up feelings (100%), negative thinking (100%), not enough faith (80%), and working too hard (80%), as increasing their personal risk.

Biomedical Interventions

Women in this group, including Nora, the nurse, did not trust several biomedical interventions. X-rays, taking too many medicines, birth control pills, hormone replacement therapy, and breast implants were seen as risky for breast cancer by all the women. Proposed mechanisms included “interfering in natural processes” by birth control pills and hormone replacement therapy, cell mutations from the radiation of x-rays, depressed immune systems from
medications, damaging effects from the chemicals in medications, and leakage from breast implants.

X-rays and mammograms - Only Estelle did not think that x-rays or mammograms contributed to breast cancer; even Nora, who promoted them in her professional role, did not fully trust them. Estelle believed that both were safe because, "Our technology has improved to the point where we can be much more precise with the use of it and provide protection for people who are administering them." Rhonda was in awe of the power of x-rays, or radiation, and repeated an idea we encountered above: x-rays can go "through" a person. "It's invisible to the naked eye . . . but it's very strong for it go get pictures of the bones through the skin. No matter what size you are, 20 lbs. or whatever, it can go straight through."

Breast implants, birth control pills, hormone replacement therapy - All the women agreed that breast implants were dangerous, and only Estelle disagreed that birth control pills and hormone replacement therapy carried risks.

Medications - All the women agreed that taking "too many" medications was risky. Again, the women were suspicious of them because of their unknown side effects, but no one mentioned drug interactions. For example, to Estelle, medications are chemicals and she applies all the dangers associated with synthetic chemicals to medications.

Surgery - Estelle differed from the other women in not considering surgery risky for breast cancer. To Rhonda, "surgery and anything else that opens the body up" exposes the inside of the body to air, for example, operating
room air that could still be polluted "cause other people been in there and had surgery and then the certain smell or anything." This, again, is an example of the theories that people leave something of their body behind wherever they have been and that the air can be dangerous.

Abortion - Rhonda, alone among these women, maintained that having an abortion contributed to breast cancer.

Risks to Self - At least half of the women in Group Five rated their exposure to many of the "Biomedical Intervention" items as increasing their personal risk. X-rays (80%), mammograms (80%), birth control pills (60%), medications, and surgery were all considered personally risky. Rhonda echoed Sonia's thinking about her two abortions: she regretted them and worried that she might be punished because she "took a life." She admired other women who have kept their babies and "found a way," because, "you never know, that little baby might grow up to be President."

Spiritual

God's will and punishment - According to these women, God did not punish women with breast cancer. Breast cancer could be a natural consequence of exposures that are debilitating to the system. But, as stated above, all the women in this group maintained that God's will ultimately determined who would and would not develop breast cancer.

The women understood that there was a struggle between an individual's will and the will of God. According to Estelle, God wants each individual to "get with" his will, that is, to turn her life over to God and accept that the
circumstances of her life are according to His plan. If someone is "hard-headed," if she doesn't "get with that in the first place," then God might "allow" breast cancer to develop to get her attention. Nora agreed that breast cancer could change a person's life "in positive kinds of ways," and that it might be God's will for this to happen. She and Barbara also maintained that God could use it to "test" an individual, though neither elaborated this point. Nora was uncomfortable with this notion, however, because she maintained that "there are better ways to do it!" Rhonda said, "He has everybody's life planned out and how he wants you to die and how he wants you to live."

**Luck** - Phoebe and Rhonda also thought that an element of luck was involved in whether any woman developed breast cancer. Rhonda (Phoebe did not expand on her thinking) seemed to think that luck was a force in the universe that attached itself to a person and helped determine the circumstances of a person's life. Luck for Rhonda seemed to be different and separate from God's will, although I am not clear about her ideas. In contrast, Estelle, though she rated this item a "3," attributed everything to God's will and considered herself, as did so many others in this sample, "blessed" by God rather than lucky.

**Devil** - All of the women held that the devil could cause breast cancer to develop. Barbara reiterated the position that if there is a good force, or God, then the opposite, evil, or the devil, must logically exist as well, and that each had power. Nora demonized stress, equating it with a devil that she conceived of as,

> adversity . . . He's a barrier . . . I think stress is probably the devil. I think that he can be a part of people's attitudes and behavior . . .
I think he has a power, but I'm not sure what shape or form he takes.

In her description of her thoughts regarding the devil and his power to cause breast cancer, Estelle also demonized stress, and articulated a view of the universe the site of a struggle between good and evil.

My experience leads me to believe that there is such a thing as spiritual warfare, and if there's spiritual warfare, then there's just got to be a difference between good guys and bad guys. Infirmity, I believe is spirit. There are some natural causes for physical things, whether it is a germ or stress, there are some things we experience as a result of some supernatural manipulation . . . . There are some forms of infirmity that I perceive to be a physical manifestation of the spiritual attack . . . . If there is divine healing, there is the negative opposite to that.

Again, the devil can enter a person's interior and tempt her to do evil. To Estelle, the devil "got in" through a person's ignorance and arrogance.

"Especially the things that we know to be out of line of God's Word that we involve ourselves in open the door to allow."

According to Estelle, the devil may tempt or a bad choice may be presented, but ultimately it is up to the person to "rebuке the devil" or choose the better alternative. At other times, however, demonic attack occurs and, even with free will, sometimes a person can not overcome this attack without outside help. She described her son as having the "evil spirit of anger" attached to him. She said, "There are times when it's almost visible to me that he's being pushed. There are other times when he's made a conscious decision." She and others pray fervently for his deliverance from this attack, since the power of God can overcome the devil's force.
Working roots - Barbara, Phoebe, Estelle, and Rhonda all believed that working roots or having a curse put on someone could cause breast cancer. Nora knew of the tradition, but did not give it any credence. Barbara said, "You know, the most educated black woman will probably tell you she don't believe in this stuff. She would never admit it, but they talk about it at home. We all do."

She continued,

I think that's why we [black people] fight a lot. Everybody fights, but we really, really fight a lot about our possessions. We just will not let anybody have anything of ours . . . . [If someone has her clothes,] I'll probably never wear it again, but I just want it away from you. We talk about it all the time, everybody does.

Rhonda believed in the existence of other evil spirits besides the devil, and that people from other countries still did "witchcraft" and "voodoo" and "ancient spirits and stuff." She expressed the theme of competition among women for men, as did others in the sample. She was told to stay away from African men, because, "Someone could put an evil spirit on you for you to leave my man alone." Rhonda believes "that another woman can use some kind of jinx on her man and it won't harm him, but if the woman lay up with him, she can break out into a rash and you go to the doctors and they say, 'I ain't never seen a rash like [that]." She said, "once you lay up with a person nude, I think anything can penetrate through someone's pores."

Estelle, though she maintained that the devil worked through some people who could cause illness, was not involved in such practices herself, and did not appreciate anything that perpetuated the myth that all African-American people are involved in witchcraft (cf. Fox 1995).
Risks to Self - Women of Group Five felt very much personally at risk from nearly all the items in the "Spiritual" category. Of course, 100% thought that breast cancer might be God's will for their lives. But luck (60%), the devil (100%), and roots (80%) also contained personal danger. Only Rhonda, with her significant burden of guilt about her past and present actions, felt that God might punish her with breast cancer, but all attributed danger to the devil.

Social

Social interaction - Only Rhonda believed that cancer/breast cancer was contagious as we saw above in her ideas about sexual contagion. She also was afraid that talking about cancer/breast cancer might "bring it."

Societal factors - Nora, Barbara and Estelle had several ideas about why black women, referring to poor black women, had higher mortality from breast cancer. For example, lower access to health care and routine services promoted fear of these services. Or rumors might start about biomedical interventions, for example, that mammograms are painful. Others would then be afraid to receive one. They also perceived black women as "survivors," who could deal with anything, but who had to deal with a lot. Barbara said that life for some women was a series of crises that had to be met and people who had to be cared for, and there was no time to spend on themselves.

Risks to Self - Only Rhonda thought that talking about breast cancer and contagion increased her personal risk.
Overall Personal Risk Perceptions

In response to the open-ended questions, all the women in Group Five considered themselves to be at risk. Emily cited her family history of other types of cancer that she generalized to breast cancer and Phoebe worried that her diabetes might somehow lead to cancer, though she did not specify breast cancer.

Rhonda was the only woman in this sample [besides Penny below] who explicitly at least partially attributed her perceived increased risk to her cystic breasts. Her lumpy breasts had been a continual problem for her since she was 18, and she had had many biopsies. The biopsies had changed the shape of her breasts, making her feel unattractive to men. She was constantly worried that one day, a lump would “turn” to breast cancer.

Barbara attributed her increased risk to her health-related behaviors: “I smoke, I drink, I don’t eat right.” Nora, a college-educated nurse educator who was very well aware of biomedically identified risk factors, considered herself at risk because she had never had children and because she knew that most women who develop breast cancer have no identified risk factors.

SUMMARY

Group Five rated 43 items in nine categories as dangers. No items in the Injuries, Reproduction, or Social categories were rated at a “3” or above. The categories and items deemed risky are: 1) Body - family history, immune system, maternal nutrition, imbalance in the body, clogged-up body, poor health, female hormones, weight, and aging; 2) Germs - germs; 3) Sex - STD’s; 4) Energy
forces - sunlight, radiation, microwaves, power lines, appliances; 5) Synthetic chemicals - hair chemicals, pesticides, food additives, chemicals in the environment, chemicals in the water, chemicals in cleaning supplies; 6) Lifestyle - diet, caffeine, tobacco products, secondhand smoke, alcohol, lack of exercise; 7) Stress - stress, bottling-up feelings, negative thinking, working too hard; 8) Biomedical interventions - x-rays, mammograms, birth control pills, hormone replacement therapy, breast implants, medications, surgery, biopsies; and, 9) Spiritual agents - God’s will, the devil, and working roots.
CHAPTER XIV
DIVINE CAUSATION

GROUP SIX – THE “GOD PUT IT THERE” GROUP

Group Six is the final “group” of women whose basic theory of breast cancer causation was Divine. As noted previously, this group consists of only two women who could be considered outliers rather than constituting a group of their own, especially since other groups contain heterogeneity within them. However, these women’s idea of how God exerted his will was different enough to highlight in this exploratory study since ideas about God’s will define the major models.

Whereas the other Divine model holders, women in Groups Four and Five, maintained that God “allowed” breast cancer to develop through worldly means, the women in this group saw God as actively causing cancer by “putting it” directly in women’s bodies either before birth or during life. In these women’s view, other agents or conditions could activate or accelerate cancer’s progression, but if God had not actively placed it in a body, cancer would not develop regardless of one’s other exposures or actions.

Penny and Mary, the two members of Group Six, disagreed with each other on some agents that could activate or promote this God-given cancer, but, in general, they maintained that more agents and conditions could contribute to cancer/breast cancer development than the women of Group Four, and their choices were often different from the women of both Groups Four and Five. The
“Injury,” “Stress,” “Reproduction,” and “Sex” categories, in particular, distinguished Mary and Penny from the members of Groups Four and Five.

Penny was much more articulate than Mary, and was able to develop theoretical models of mechanisms through which cancer/breast cancer developed. Hence, her thinking is more clearly revealed and I quote her more often. Often, I would suggest a theory to Mary and she would agree or disagree by nodding or saying “uh-huh” or “huh-uh,” rather than verbally expanding her thoughts.

Table 14.1 (Appendix E) includes background information for Penny and Mary.

About 20 years separates the ages of these two informants, but they share similar lives. Penny lives in a dilapidated house with her “play grandmother,” in a primarily black, low-income area of Cleveland. Mary lives in public housing with several children and grandchildren and her lover. Penny works as a receptionist and as a food service worker in a hospital. She talked about wanting to return to school to become a nurse, but she is not actively pursuing this goal. Mary works as a cleaning woman for the Cuyahoga Metropolitan Housing Authority, which operates the public housing units in the county. Both were born and raised in the North, but both have strong ties to relatives in the South (as do many other informants). Penny claimed both African-American and Native American heritage, but Mary identified herself only as African-American.
Penny belonged to a non-denominational, integrated, fundamentalist Protestant church. She attended church regularly and her responses were very religiously oriented, but she did not devote large amounts of time to Bible study or prayer as did some other women. Mary occasionally attended church, but did not belong to any, and her activities did not center on religion.

Penny has never been married, but has been in several at least emotionally painful relationships with men. Mary has been widowed, and is currently in a relationship with a man "who is good to her." Penny never carried a pregnancy to term, but she suffered a miscarriage when, according to her, she found out that the father of her child was married and had several other children.

As noted above, Mary has living children and grandchildren.

**The Characteristics of Cancer/Breast Cancer**

To both women, breast cancer is a "deadly disease." To Penny, this was self-evident: the word "cancer" sounded deadly to her. She considered cancer "like a stranger inside you." Repeating a folk idea found by Snow and others that we saw earlier, she saw the universe as the setting for a struggle between good and evil forces" which were embodied in beings. Penny explicitly labeled cancer profane when she called this inside stranger a "demon," as did Bessie of Group Two.

To both these women cancer/breast cancer is a profane or unnatural "thing" inside a body. Penny said, since God made you, obviously cancer was "a God-given thing." Both Penny and Mary talked about the mystery of cancer/breast cancer's origins that left no logical alternative but to attribute it to
Divine causes. Both maintained that the term, cancer designated one disease that "worked" the same. As Penny said, "You die from them all . . . so cancer is cancer."

**Pathophysiology**

Both imagined a predatory process: cancer is an "eating disease." Mary said, "It just seems like it just eats up your body." Penny added an industrial image as she mentioned a corroded battery. She said, "You ever seen a corroded battery -- Oh, man! And it fizzes up . . . . That's the way I think cancer do to the inside of your body."

**Appearance** - Mary said cancer/breast cancer "would probably be dark, maybe holes or something." Penny maintained cancer was smoke colored and had three images of its appearance: a corroded battery, a "bug that's putting it all over your body," an idea we have seen before, or "sliding like a snake."

**Metastasis** - Both Mary and Penny held a proximity theory of cancer/breast cancer metastasis. To Penny, cancer/breast cancer spreads through "the fatty tissues, the blood stream, the immune system -- you name it . . . . [It goes] in one particular area and just boom!"

**Course**

Both informants repeated ideas discussed by other groups. There is no cure for breast cancer and it eventually ends in death, according to both of the informants, but some people can live longer than others. Both had experienced another's death from cancer. Mary maintained that if "they cut the breast off," breast cancer may be halted for a time. But for whatever time a person
remained alive, cancer/breast cancer caused devastating changes. According to Penny, "You don't act the same, you don't feel the same." She also maintained that cancer and breast cancer could lead to "mental breakdowns."

Both Penny and Mary said that biomedical treatments such as surgery, radiation, and chemotherapy made the cancer worse and hastened death. Such treatment also changed a person profoundly. One effect associated with biomedical treatment is losing weight; cancer itself eats on you, but treatment also diminishes the body. "You get so skinny, you melt away," according to Penny. She said, chemotherapy, "chemo" sounds like "kill more." She said, "It seems like everybody that takes that chemo, it changes their complexion, it changes them, they go through mental breakdowns, they get worse and THEY DIE!"

Etiology

Agents from outside the body or inherent bodily conditions or unhealthy practices cause the body to break down which allows the God-given cancer already present in the body to activate and prey on healthy parts of the body. "Weaknesses" in the body, either congenital or acquired, are vulnerable to cancer predation, rather than turning into cancer themselves, in contrast to theories discussed earlier. Penny articulated two additional theories. First, cysts in the breasts dissolve and "become poison to the system" The cysts, however, existed in the body from birth and were again, "God-given." Second, food, particularly meat, could get stuck in the body and create a weakness which the inborn cancer could eat.
Characteristics or Conditions of Bodies

Family history - Both associated family history and breast cancer. Penny maintained that perhaps mothers passed cancer on to their fetuses. She understood genetic inheritance and fetal development as occurring simultaneously; both genes and germs and chemicals that the mother eats pass to the fetus as it develops. She said,

You have to make your baby -- you are what you eat . . . So you’re making a baby, so all that bacteria that you eating from the farm (See below) is going into you and your baby so you got the same genes, you carry over.

Immune system - Both Penny and Mary maintained that the inherent strength of one’s body is an important determinant of whether cancer activates, if it is present at birth to begin with. One is born with a certain immune system, and both said that maternal nutrition could influence a body’s strength.

Poor health - One’s general health reflected the strength of one’s immune system, and thus, poor health could indicate the potential for breast cancer development. Neither maintained, as did some others, that poor health itself was a direct contributor to breast cancer by breaking down the body, and neither agreed that imbalance in the body contributed to breast cancer.

Clogged up body - Penny articulated the fluid and flow conception of the body as a plumbing system that we have seen before. In her words, “If you don’t dust your floor . . . all the dirt you bring outside builds up. . . that’s how I think the system works.” By implication, this dirt must be channeled out of the body.

Female bodies - As with women in other groups, Penny and Mary thought that certain characteristics of female bodies placed women at risk of developing
breast cancer. For example, Penny said that breasts could impede the elimination of impurities. She said,

Men are built straight down. The only U-turn they have in the front is their penis and they be peeing everything out. . . . Whatever we eat is coming down. It got to go through the breasts, and you don't know what's gonna get stuck.

Penny also maintained that breast tissue breaks down with age, as evidenced by the “hanging” breasts of older women. Penny explained this in terms of the breasts’ special sensitivity; she said “That's the most sensitive part of their body.” Both women also maintained that having large breasts was risky, though neither articulated the logic that underlies this idea.

Both maintained that female hormones might be related to breast cancer because of the “changes” they effect. Only Penny, who had experienced “female trouble,” saw danger in menstruation, which she understood as a consequence of female hormones. Her own severe cramps and clotting impressed on her that “hormones in a woman is a mess,” and that they could contribute to any number of ailments.

**Weight** - Mary disagreed and Penny only moderately agreed that weight was a factor in breast cancer development. Unlike most of the other informants, Penny did not attribute weight’s riskiness to the unhealthy effects of being overweight. Instead, she invoked the changes, flowing fluids, and poisons in the body theories by perceiving danger in frequent changes in weight. She said, “Your body is getting small and it's getting big and in the midst you got that poison moving . . . .“
Aging - Concerning aging, Penny said, “The older you get, the shorter you get, the more wrinkled you get, the flab[bier] you get.” I asked her what was happening on the inside of the body as one aged, and she replied, “Tissues flow, flow, and flop.” She also believed that the effects of “bad” habits accumulated with age, eventually activating cancer if God had already put it into a body.

African-American bodies - Neither woman in this group said that there were any bodily differences between blacks and whites. According to Penny,

... as far as the human body, God made us all! We’re all the same! (Speaking to me) You ain’t no different — You just lighter than I am, your hair is softer than mine. The same man made you, made me.

People’s behaviors and their characters, symbolically located in their hearts, were different, but neither depended on skin color. She continued,

You got some nasty whites, some nasty blacks. You got some low-class, some high-class .... People got different hearts. I may have been a mean black girl, you might have been a mean white woman.

Risks to Self - Both Penny and Mary attributed personal risk to their mother’s poor nutrition while pregnant with them. Penny had a difficult relationship with her mother and criticized her eating habits, along with nearly everything else about her mother. Though many others said that the diet of African-Americans included too much fat, Penny criticized the diet of the rural South for its heaviness. She said of her mother, “She don’t eat right. She’s from down South and you know that damn country-ass food. That ain’t good food — it’s too heavy.” According to Penny, such heavy food could get stuck in the body. Penny’s perception that her mother might have increased her risk of breast cancer through
her diet during pregnancy seemed to symbolize the many ways Penny thought her mother had failed her.

Injuries

Both strongly agreed that injuries to the breast, such as those of sexual origin, could create internal weaknesses or infections that could "trigger" cancer that was already there. Free-flowing blood, as opposed to light and air, was necessary to healing, in their opinions. To Mary, "Anything tight (such as clothes) that would pull your skin . . . . You cutting off your circulation and stuff." Injuries to breasts promoted cancer development more so than injuries to other body parts because of the breasts' particular sensitivity.

Risks to Self - Only Penny thought that breast injuries increased her personal risk.

Germs

Mary said germs are "filth in the air," and both she and Penny strongly agreed that germs could cause cancer/breast cancer. They both emphasized the importance of cleanliness to health maintenance. Penny, as did others, talked about the dangers of eating food that may not have been prepared hygienically. She said,

If you eat nasty, behind somebody nasty, if you eat out a lot. Everybody ain't clean, so if you don't know the bacteria that you put in your system unless you do it yourself.

Penny did not seem to differentiate between bacteria and the chemicals that "they" used in growing food. She continued,

Now they adding these different things that make it grow bigger and fatter so what are you eating? Something out of a can that
they done put in the ground, pulled out the ground, washed it off and selling in the store. . . . [If they were growing it] naturally, from the sun, it'd be fine. But they adding chemicals -- you don't know what you're getting.

As we saw above, all of these were impurities that needed to be eliminated from the body.

Risks to Self - Both Penny and Mary were wary of germs and thought that their exposures increased their risk of developing breast cancer.

Sex

Mary deemed adultery and homosexuality both immoral and abnormal, and thus, risky. She said, "Just have normal sex." Penny strongly agreed that abnormal or immoral sexual activity was dangerous as well because of contamination by germs. She defined normal sex as: "Straight in the hole -- the right hole! The front hole!" She referred to cunnilingus as "sucking the spur," and her opinion of this activity was as follows:

Say they got, overnight, if they didn't brush their teeth -- you know your tongue got that gook on it from the day before and then they want to suck your thang, then they want to put it in your mouth -- a French kiss -- I'm gonna throw up!

"Normal" playing with the breasts during sexual activity was not harmful, but Mary said, "handling your breasts too rough . . . could do something to your tissues." Penny agreed that if men were too rough or the breasts were manipulated too often, breast cancer could result. Her theory was that the effects of sexual stimulation on the body could cause clogging or clumping within the body. As we have seen, this was a dangerous condition in Penny's opinion.

She said,
Too much sucking on the breasts can bring it to a head . . . can bring your hormones to a head to get clogged. . . . When they call themself massaging them, they can get a tissue hung into another tissue, anything to make that bacteria in the inside of your body get hung up together.

In addition, prostitutes and others who engaged in sex with multiple partners risked breast cancer through microbial infection.

**Parents "messed around"** - Penny also thought that if a parent messed around sexually with a partner other than the spouse while a mother was pregnant with a child, it could lead to problems in the body of the child.

**Not enough sex** - For Penny, who had not had a sexual relationship in a very long time ("I can't even give it away!"), lack of sexual activity meant that "Everything was backed up inside you and could thus lead to cancer," but Mary did not agree.

**Risks to Self** - Mary and Penny differed sharply on this category. Mary did not feel at risk from any sexual items that she rated, and Penny felt at risk from most of those she rated. She had practiced immoral sex in that she was not married to her partners, but she had never practiced abnormal sex, in her opinion. Such activities repulsed her, as we have seen above. She was also extremely sexually frustrated, having had no sexual relationship for several years.

**Reproduction**

Penny said that not having children left you "clogged up," rather than subscribing to a biomedical hormonal theory, and Mary saw no relationship at all between not having children and breast cancer. The two women agreed that having too many children (around 10), having children too late, and having
children too close together was risky for breast cancer. Mary only expressed one causal theory: if one had children too late in life (she did not specify an age), one's body could have broken down. Childbearing would be too much of a strain. Penny maintained that having kids too close together was dangerous, because "You open too much." The same theory applied to having too many kids ("Look how many times you opened up!"), and, in reverse, to having a first child relatively late ("You closed so long, then you open up and expose yourself to germs").

Mary did not link breastfeeding and breast cancer, but Penny maintained that breastfeeding was risky because milk could clog up the milk ducts and stay in the system when it should be eliminated. Not breastfeeding was not seen as risky by either woman.

Risks to Self - Penny's feelings about her own lack of childbearing, her pregnancy losses, and not having breastfed mirrored Barbara's from Group Five above. This was a lack that Penny felt deeply.

Natural Energy Forces

Sunlight - Both Mary and Penny agreed that exposure to sunlight could contribute to breast cancer, though neither discussed a mechanism.

Microwaves - Microwave ovens were threatening to both women. Mary always put a paper towel over hers when using it "cause they have those waves." Penny held that microwave ovens worked through radiation.

Radiation - Both agreed on the dangers of radiation. Penny said, "Radiation I don't like. . . . [. . .] [Radiation is] a machine that's got a lot of electricity,
light, chemicals in it all mixed together. To put to a human body, that's not good."

**Electrical power lines** - Electrical power lines were also dangerous to both. Penny also expressed a theory of the body in which all parts were connected to explain her thought regarding these forces. She said,

> It's like radiation from the microwave. Power lines and plugs and sparks and heat don't go together...because of fire...[It] electrocutes you. Don't you know your big toe is hooked all the way to your brain?"

**Appliances** - Mary had heard that cellular phones cause cancer, and Penny found numerous appliances dangerous because of the radiation. Speaking of a toaster, she said, "You don't know what's inside of that stuff making your bread brown, what kind of wires they use."

**Risks to Self** - Penny and Mary disagreed on all items except "radiation" and "appliances," which both agreed increased their personal risk, but at least one of them rated all the items in this category except "lightning" at a "3" or above.

**Synthetic Chemicals**

**Hair chemicals** - Neither Penny nor Mary accepted the theory that the scalp absorbed hair dye or that relaxers could promote cancer development.

**Pesticides, food additives, chemicals in the environment, drinking water, and cleaning supplies** - Both maintained that all these chemicals were linked to breast cancer. Ideas about mechanisms did not differ from those of other groups. As we saw earlier, Penny classified germs and chemicals together as cancer-causing agents; "anything that comes from the outside" into the body could trigger cancer/breast cancer.
Risks to Self - Mary and Penny agreed that food additives, chemicals in the environment, and chemicals in cleaning supplies increased their personal risk and that hair chemicals did not. They disagreed about pesticides and chemicals in the water, with Mary strongly attesting to their danger and Penny discounting their personal danger.

Lifestyle

Diet - Eating a “balanced” diet that included meat, fruits, and vegetables was important in general disease prevention. To Mary, eating “a whole lot of pork” and “any real fatty meat” was unhealthy, but one’s weight did not place one at increased risk of developing cancer/breast cancer, nor did lack of exercise. Penny remarked that changing one’s weight was risky for breast cancer, echoing the theme seen earlier that changes are dangerous. She said, “... your body getting small and it’s getting big and in the midst you got that poison moving, that blood moving. You don’t know what could clog up in it.”

Tobacco products - Both Penny and Mary maintained that smoking “too much” may “trigger off” cancer/breast cancer.

Alcohol - Penny agreed with women of Group One that “alcohol is really a poison,” but Mary disagreed. (She was drinking beer as we talked.) Penny combined a theory of aging in which unhealthy habits accumulate with her theory of poisons staying in the body, both of which possibly culminating in active cancer/breast cancer. She said,

You drink all that stuff yearly, all year round, and when you get old, your body’s gonna start to settle and that poison is just like bacteria, just stay there.”
Caffeine - Penny, but not Mary, considered caffeine a poison and risky for breast cancer.

Risks to Self - Mary, who was overweight, sedentary, and drank beer, did not think that any of the “Lifestyle” items placed her at risk, because, as she put it, “I eat healthy,” offering as an example the stew of vegetables and meat and the macaroni and cheese she was fixing for dinner. Penny, who was also overweight and sedentary and who drank beer and smoked cigarettes, was concerned about her smoking, her exposure to secondhand smoke, and her use of alcohol, and rated all of these items at “5.”

Stress

In contrast to many other women in this study, neither Penny nor Mary emphasized the role of stress in cancer/breast cancer development. Mary maintained that stress “probably” could contribute to cancer/breast cancer, but she did not define its meaning to her, she did not emotionally recount the effects of stress, and she was not emphatic about its contribution. Penny said, “It doesn’t have anything to do with cancer”. Neither connected negative thinking and cancer/breast cancer.

Working too hard - Mary strongly agreed that “working too hard,” referring to her hard physical labor as a cleaning woman, exhausted a person, and that it could lead to breast cancer, but she did not link this to any concept of stress, as did the women of Groups One and Three, for example.

Risks to Self - Women in Group Six rated no items in the “Stress” category as personally risky.
Biomedical Interventions

**X-rays and mammograms** - X-rays were dangerous to both because of the radiation, but mammograms also posed risk because of the possibility of injury, according to Mary. Penny, in contrast, did not think that mammograms were risky.

**Surgery** - Both Penny and Mary subscribed to the "air hits it and that's it" theory regarding any kind of surgery that "opens you up." Mary did not see "why anybody would let them cut on them like that. I wouldn't," referring to biopsies. Penny feared "other people's germs you don't know about" that one may be exposed to during surgery.

**Medications** - Mary did not take prescribed or over-the-counter medications or "any too strong a medicine," including birth control pills or any hormone pills, because she was afraid of their effects on the body, though she was not specific about these effects. Another reason for her distrust lay in the rumors she had heard that "even they [doctors] can make a mistake in prescribing your medicine." Penny feared medications' side effects and said that many pills are made from powders. "Where does the powder come from? Grows like cocaine and everything else -- comes out of dirt," which, as we have seen is a source of germs.

**Breast implants, birth control pills, hormone replacement therapy** - Penny and Mary both thought that all three of these unnatural interventions posed risks for breast cancer.
Abortions - Penny maintained that risk from abortion resulted from not allowing a natural process to occur, and because "you don't know what kind of instruments they used;" Mary attributed the danger of abortion to "injuring yourself."

Risks to Self - Mary and Penny agreed that their exposure to x-rays might place them at increased risk of developing breast cancer. In addition, Mary was anxious about the mammogram she had received and Penny was concerned about her use of birth control pills in the past and the biopsies she had had for her breast knots.

Spiritual

God's will and punishment - In Mary's theory of God's direct role in cancer causation, she held that God punished people for breast cancer for sins such as homosexuality or adultery. "God punishes you in all kind of ways . . . .," according to her. Though Penny disagreed that God punishes with breast cancer scoring the item, she did indicate in her talk that God punished people for their behavior. Speaking of the father of her child who had lied to her about his marital status, she said, "A lie will kill you. But he will pay for it. God's gonna make him pay for it."

As we have seen above, Penny maintained that since cancer was inborn, it was a "God-given thing" because God personally made everyone's body. She described an experience of God actively being involved in her life, an experience that confirmed God's existence to her. After her boyfriend "turned up married" when she was three months pregnant, Penny said she,
couldn't deal. My cousins gave me drinks, reefer... I couldn't
dance, I felt faint, . . . . I couldn't eat, I couldn't sleep, when I did
doze off, I was always dozing off crying. I was ready to become
suicidal, I was ready to crack up. I did crack up. I prayed my way
out of it. That's why I know there's a God somewhere.

Regarding God's will, Mary said, "In many ways, whichever His will is, there ain't
nothing nobody can do about it." Penny agreed that "God got ahold of
everything."

**Luck** - Neither believed that luck had anything to do with whether a
woman developed breast cancer, though Penny wishes (or prays) for good luck
when she buys lottery tickets and looks at dream books to pick a number to play,
or plays the numbers that symbolize her name.

**Devil** - To Mary, the actions of the (masculine) devil could indirectly cause
cancer/breast cancer through his influence on people to "do the wrong thing."
She said, "The devil is a power. He butts up against God. When God tell you to
do right, he [the devil] tell you to do wrong, but you have to be strong," indicating
personal responsibility for resisting the devil's temptations. Penny did not accept
the theory that the devil could cause breast cancer in any way. No matter what
you did or did not do, if God had not put cancer in the body, you were not going
to get it, and if He had, nothing you did could stop it since God is in supreme
control.

**Rootworking** - Neither woman agreed that rootworkers have the power to
cause cancer. Like Joanne of Group One, Penny referred to conjurers or
rootworkers as "demonized people," but she rejected the idea that they could
cause cancer/breast cancer, because, once again, "God does it all."
Risks to Self - Again, both women strongly agreed that God's will was the ultimate source of personal risk, but only Mary was afraid that God might punish her with breast cancer for unspecified sins.

Social

Social Interaction - Neither Mary nor Penny stated that cancer/breast cancer was contagious, and neither agreed that talking about cancer contributed to cancer/breast cancer development.

Societal factors - Both knew that African-American and Euro-American women developed and died from breast cancer; neither maintained it was a "white woman's" disease. Mary linked the incidence in black women to the meat available in inner-city stores, as did other women in this study. Though she lived in the inner-city and did not have transportation of her own, she shops at a different store than the neighborhood shops for her meat.

Penny said that black women were more likely to die from breast cancer because they were less likely to get proper medical care. She stressed the superiority of private doctors, as opposed to those who treat welfare recipients (who are disproportionately women). In fact, she said that her cysts did not become cancerous because, "I had a private doctor.... He stuck a needle down in me to see if it was fluid and it wasn't, and he put me in the operating room in one day." She concurred with those who said that biomedical professionals experiment on black people, and was wary of them.

Risks to Self - Neither Penny nor Mary considered talking about breast cancer nor contagion to place her at increased risk of developing breast cancer.
Overall Personal Risk Perceptions

In response to open-ended questions, Mary did not think she was at risk, but Penny felt strongly that she was. Mary attributed her risk status to her healthy eating habits, while Penny, like Gina, mentioned her poor general health and her "female problems" with "knots" in her breasts and menstrual cramps.

SUMMARY

The women of Group Six related 45 items in all 11 categories to breast cancer causation. The categories and items deemed risky are: 1) Body -- family history, immune system, maternal nutrition, imbalance in the body, poor health, female hormones, big breasts, aging; 2) Injuries - tight clothes, injuries, bumps, and bruises to the breast; 3) Germs - germs; 4) Sex - immoral sex, abnormal sex, rough sex, STD's; 5) Reproduction - having no children, having too many children, having children too late, and having children too close together; 6) Energy forces - sunlight, radiation, microwave ovens, power lines, appliances; 7) Synthetic chemicals - pesticides, food additives, chemicals in the environment, chemicals in the water, chemicals in the cleaning supplies; 8) Lifestyle - diet, tobacco products, secondhand smoke; 9) Stress - stress, working too hard; 10) Biomedical interventions - x-rays, mammograms, birth control pills, hormone replacement therapy, medications, surgery, biopsies, abortions; and, 11) Spiritual agents - punishment from God and God's will.
CHAPTER XV
DIVINE CAUSATION
PROFILE: LYDIA

Background

I first met former model and actress, 45-year old Lydia, in the lovely Georgian home she acquired in her divorce settlement. Mother of one and an administrator of a social program, she had grown up on the West Coast and was anxious to return. In her view, Cleveland was "the most closed, limited place I've ever lived in . . . people here are still fearful of things that are not feared by people in other places," citing mammograms and homosexuality as examples.

According to Lydia, she was raised by "strong women," not sophisticated (her mother had grown up in the South and had not graduated from high school), but strong. After graduating from college as a business major, Lydia spent time as a flight attendant and then administered another social program. Now she was ready to move on from her current job, and she was brimming with ideas for her future.

She has borne one child and wanted more, but was not able to conceive, due to what she described as antiovorian antibodies and hyperthyroidism. But her desire for another child disappeared, and she said, "One day I woke up and it was no longer important." She nursed her child for one year with no supplements because she was afraid of the ingredients in the formula. After seeing the stain left
by formula on a friend’s baby blanket, she “was not going to put any of that into
[her] baby.”

The circumstances of her divorce hurt Lydia greatly, but she feels she has
“moved on.” Her past relationships with men have been unsatisfying (one was
physically abusive), and she is looking for someone to treat her well. In the past
she has allowed men to walk all over her, (“I had no self-image”) but she has
changed with the help of counseling. She described her boyfriend during the time
of the study as “my sweetie who is not so sweet all the time,” and she is not
committed to him.

She has had trouble with her health, as mentioned above. Her
experiences have generated a profound distrust of male doctors: “If you’re a
woman and you’re over 40, they keep increasing your hormones and they DON’T
listen and as a woman you can be killed by physicians.” Her treatment for
hyperthyroidism has changed her face and body. She used to be scrawny; now
she has gained weight and her face is round, and she said, “I have a face that’s
not mine.” Her new body has its beneficial side, however, and she feels it has
given her a new sense of her own power, maturity, and femininity. “Now I have
soft spots... like I’m a real woman now!” Her aging body, however, does not
please her as she says ruefully, “Looking at my naked body in the mirror is not a
pleasant sight!”

She, like Annette, relies on herself for health information. She only trusts
women doctors, and uses them first for information, but, she said, “I have to
research it myself, I have to -- I will decide what I believe. “ She trusts female
sources of information, but does not trust the popular media, even if the messengers are women. Also, others' experiences are a prime source of knowledge for her; real individuals' stories persuade her more than statistics.

She chooses doctors by recommendation, and said, "I am not impressed by anyone's title. Those who are legends in their own mind pose a danger to me. If they don't listen to me I won't, - I fire doctors, I really do. If I find an ego, I'm gone." She also is "gone" if they do not take her opinions and her understandings seriously, and she does not heed advice or fill prescriptions that do not agree with her health-related theories. Though she is religious and holds a Divine model of breast cancer, she did not speak about God as a source of knowledge.

She, like all the others in this study, equated risk factors with dangers. In Lydia's opinion, if someone is considered to be at risk, it does not mean that the person will develop the disease in question. But it does mean that she needs to be particularly conscientious about her health-related behaviors.

Lydia's church involvement and Christian faith are strong. She has an activist interpretation of her relationship to God: God provides what is needed but it is up to her to take advantage of it. On the other hand, she can only do so much, and her life ultimately depends on God's will. She said, "I think that we had to take responsibility for what we know is wrong and right and after that, we just have to put that in God's hands." This is particularly true of breast cancer, since the cause is not known, one can do the best that she can, but whether one develops it is in God's hands.
Characteristics

Lydia called breast cancer a “mean vicious, completely debilitating disease and also one that’s usually triumphant,” and defined it as “something that eats away at the body.” To her, it starts as “cells out of whack.” She thought that “cancer” was just one disease, “and, “depending on which area it settles in is how it will affect your body. I think it has etiquette . . . It has pancreas etiquette, lung etiquette, breast etiquette,” meaning that cancer behaves according to its site, similar to the way one person may behave differently in different social settings.

Pathophysiology

To Lydia, cancer, these out-of-whack cells, grows first and then, as it gets into the lymph glands, “it starts to kind of eat away at your system.” She thinks of eating because her observations of the people she knows who have had cancer have told her that “It’s fast and you’re gone.” She also compared it to the action of HIV. She said, “It takes over, it causes your imbalance of the good cells and the bad cells. But it causes the imbalance because I believe that you don’t have enough of the cells that you need to fight it.” She imagines that cancer looks like “dark masses” that grow and spread throughout the body via the lymphatic system.

Etiology

Though whether cancer develops is ultimately up to God, His will is exercised through “natural” pathways. Cancer begins because “the conditions would have had to have been right for this to happen. It’s sort of like conception -- the conditions were right and then with all the other condition . . . why do some...
women? . . . I think it has to be situational. Something that's going on with your body that allows this to happen in your body."

Table 15.1 (Appendix F) lists the various items that Lydia said contributed to breast cancer development and the items she believed increased her own risk, and the ratings she assigned to each.

In contrast to Annette, who rated 74 items as contributing to breast cancer, and characteristic of the members of Group Four, Lydia only rated 22 items as contributors. Of these, 64% (14) were rated as "5" or "4," indicating strong endorsement. Categories of items that posed some risk, according to Lydia, included characteristics or conditions of the body, sex, energy forces, synthetic chemicals, lifestyle, biomedical interventions, and positive spiritual agents. The category, "Sex," included only sexually transmitted diseases due to the immune deficiency of AIDS. She did not attribute any risk to injuries, germs, reproduction, stress, or negative spiritual agents such as the devil or working roots. Many of the items she endorsed strongly were largely out of one's control, such as exposures to environmental chemicals, energy forces, and family history. In general, anything that can effect negative changes or that induce susceptibility can possibly contribute to any kind of cancer.

Lydia agreed that even fewer items represented personal danger, and she tended to rate these items as posing less risk to herself than to other women. Of course, she strongly agreed that it could be God's will that she develop breast cancer. Other items thought to pose personal risk were also those that were largely out of her control such as synthetic chemicals and
exposure to appliances. Additionally, her medical history concerned her, particularly her “female troubles,” which we will discuss below, and the medications she took to control them.

Following the outline of the profile of Annette, the next sections detail some of Lydia’s ideas about the items, if she discussed her specific ratings in any depth.

**Characteristics or conditions of the body**

Lydia agreed that family history, female hormones, imbalance of the body, and a poor immune system could contribute to breast cancer. She did not speak about family history except to say that it was important.

Lydia knew that biomedicine linked exposure to female hormones and breast cancer, but the hypothesis did not make a lot of sense to her, as we saw earlier. Lydia said the “natural function” of female bodies was reproduction of the species. As a lay epidemiologist, she had observed that women who do not reproduce do not necessarily develop breast cancer. Her own experience of her female hormones, however, was so powerful that it told her “that when your hormones are out of whack, everything goes out of whack.”

She spoke of the immune system when discussing STD’s, using terms such as “weakening” and “fight” (rather than “fight off”), indicating a popular conception of the immune system as a destroyer of invaders. Though she had “issues with impurities in the body” (see below), she did not feel that a clogged-up body posed a risk for breast cancer.

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Risks to Self—Lydia’s own history of trouble, rather than her reproductive and menstrual history, placed her at some increased risk, in her opinion. This opinion echoed the folk notion of a connected body: trouble in one area, organ, or system, signals or begets trouble elsewhere as well.

Sex

As noted above, Lydia only thought that sexually transmitted diseases contributed to breast cancer because “they can really mess up your immune system . . . in terms of how your body reacts and fights. . . . Any weakening of the immune system will make you susceptible to the changes that cause any kind of cancer.”

Risks to Self—Lydia has never had a sexually transmitted disease, and so, since this is the only item she believed was related to breast cancer etiology in this category, she did not perceive herself to be at increased risk on this account.

Natural Energy Forces

Radiation, power lines, and appliances all pose risks, in her opinion. Lydia’s experience in Harrisburg, PA, site of the Three Mile Island nuclear power plant accident, has been recounted earlier. She was aware of research into the relationship between high tension power lines and she was suspicious of several appliances such as electric blankets, hair dryers, and cellular phones, again, because she was aware of research into their effects. She often used the phrase, “The jury’s not in,” when discussing individual items, reflecting the uncertain state of biomedical risk knowledge. She applied this idea to
microwave ovens, and though she does not stand in front of them, she saw no reason to connect them to breast cancer yet.

Risks to Self – Lydia tries to minimize her risks from appliances by, for instance, turning off her electric blanket as soon as the bed is warm, but she still feels some potential danger.

Synthetic chemicals

This was an important risk category for Lydia, and she strongly linked pesticides and chemicals in the environment and water to breast cancer. Her concern lay in her, and the scientific establishment's, lack of knowledge. She was mainly concerned about sprays on food and food additives in general. She was very anxious about California's spraying of pesticides to eradicate the Mediterranean fruit fly and of the sprays used on airplanes when they fly internationally.

She said, "The jury is not in on dairy products and meat and chemicals that have been injected into the veins of animals and the long term effects on our bodies." She implicated steroids fed to cows and its effects on beef and dairy products in breast cancer development. She cited evidence from studies of young girls in Puerto Rico who had developed breasts when they were only five years old after drinking "steroid-infested" milk. She said, "We're not supposed to develop breasts at five!" indicating her belief in a "natural" timetable for the development of secondary sex characteristics. The link between dyes and preservatives, and breast cancer was weaker, in her opinion, but still possible.
**Risks to Self** – Lydia believes that she was routinely exposed to pesticides as a resident of California and as an airline attendant. Also, she knew the airline transported illegal cargo such as guns and gold into Vietnam, which fueled her distrust of American corporations. She is very careful about what she eats, however, because she does not trust what is in the general food supply.

**Lifestyle**

Diet was the most important danger in the “Lifestyle” category, followed by ingesting caffeine (because caffeine promotes breast tenderness, rather than lumps), using tobacco products, and exposure to secondhand smoke, which was intolerable to her. Lydia very much follows some streams of popular thought in this category, except that she did not discuss the virtues of exercise in breast cancer prevention. Risky foods included dairy products and meats, primarily because of the additives put into these foods to make the animals grow bigger and faster and to increase milk production.

**Risks to Self** – As stated above, Lydia is very careful about her diet. She is particularly sensitive to dairy products and her belief that impurities must be cleansed from the body is quoted earlier. She was only slightly concerned about her exposure to secondhand smoke, because, as she said, “That doesn’t get me anymore cause I refuse to be around it.” In general, Lydia tries to reduce her risks by living a “healthy lifestyle.”

**Stress**

Lydia said that stress, meaning anxiety, tension, and “bottled-up anger,” is not good for you and it can exacerbate the situation, “if one already has breast
cancer, but it has nothing to do with the development of breast cancer, in her view. In this opinion she was unlike most women in this sample, but she was in accordance with the lower ratings given to items in general by members of Group Four.

**Risks to Self** – Since she did not connect items in this category to breast cancer development in general, she did not consider herself at increased personal risk from her exposure to or experience with them. She differentiated herself from people who keep their feelings “inside” them and attributed her ability to do this to personal development. “Holding things in” caused gastrointestinal problems for her when she was younger, but, according to her, “now, I just cuss people out.”

**Biomedical Interventions**

Biomedical interventions also posed dangers. Lydia thought that x-rays, taking too many medications, birth control pills, hormone replacement therapy, and breast implants could all contribute to the development of breast cancer. As noted above, she did not trust biomedical knowledge or professionals unless they passed stringent tests. Though she did not express a theory that doctors were “in it for the money,” as Bessie in Group Two did, she, like others, did not feel that enough was known about the effects of interventions and she was suspicious of them. Interestingly, she did not regard mammograms as risky. She also did not subscribe to the idea that surgery or biopsies allowed air to hit cancer and promote its spread, though she had heard this mentioned by older women.
Risks to Self – Lydia worried about the estrogens and progesterones she took while suffering from her “hormonal imbalance.” According to her, “Any time a woman feels warm, then they feel that estrogen is indicated . . . .” Due to her distrust of biomedical practitioners, she carried any prior x-rays with her when she or her child went to the doctor so neither was unduly exposed.

Spiritual

As noted above, God’s will is the ultimate cause of breast cancer. She, however, did not think that God would punish a woman with breast cancer (although she is quoted above as saying that God would punish male pedophiles, for example). She also disagreed that luck plays a contributory role, but later said that whether one developed breast cancer was in “the deal of the cards.”

She did not believe in the contributory role of the devil or of working roots, though she was very aware of their existence. As noted above, she did consider breast cancer “a devil-like thing as opposed to God-like,” and connected God with the “positive” and the devil with the “negative,” but this was a symbolic, rather than etiologic, linkage only.

Risks to Self – As stated above, God’s will was the ultimate determinant of whether Lydia herself developed breast cancer. No other spiritual factor increased her risk. Like others who believe conjurers can use human leavings, she puts her hair from her comb in the trash can in other people’s homes, but she does not believe “anybody’s gonna work a mojo on me.”
Social

Lydia did not think that any items in the social category increased women’s risk of developing breast cancer. She was well aware of the detrimental effects of racism and low economic status on health; she said that one of her aunts was deaf because competent health care was not available to her as a child in the South. But her general perspective on health was that living a healthy lifestyle was protective – except for diseases such as breast cancer that were poorly understood.

SUMMARY

Like all the women in this sample, Lydia has created her own knowledge from that available to her. Because she is a younger, more educated woman than Annette and has had many different experiences, she has come to some different conclusions. She retains some folk ideas regarding what is natural and unnatural, the requirements of good health, and the importance of personal responsibility in achieving and maintaining it. These ideas still represent moral medicine. She also talks extensively about how she has changed herself and grown, that is, become a better person, by advocating for herself, not allowing others to manipulate or exploit her, and living in a healthy way. This reveals her assumptions about the nature of the self: it is changeable and improveable through one's own efforts.

Other representative themes expressed by Lydia include: 1) the mysterious nature of breast cancer and the uncertainty of biomedical knowledge concerning it; 2) distrust of doctors (particularly males, in Lydia’s case), yet,
simultaneously, the desire for good, accessible medical care; 3) aging as deterioration; 4) cancer as a predator; 5) the lack of control of many risk factors; 5) rejection of biomedical etiologic theories about the timing and overall exposure to estrogen; 6) the connected body; 7) the dangers of impurities, particularly technological impurities; 8) the flowing fluids theory and the necessity of cleansing the body; 9) concepts of susceptibility; and, 10: the role and action of the immune system.

First and foremost, for Lydia, as well as for the other women who subscribe to a Divine model, there are limits to what one can do regarding breast cancer. In Lydia's view, these limits may not apply to other diseases, and, if scientific knowledge advances, in her opinion, eventually they may not apply to breast cancer. For now, however, regarding breast cancer, one's fate is in God's hands.

Overview of the next section

The final section of this dissertation summarizes prevalent themes about what the women know about breast cancer risks and how they know it, and examines some possible explanations. It concludes with a discussion of the implications of these findings for breast cancer education interventions and for further research.
SECTION III DISCUSSION AND CONCLUSIONS

CHAPTER XVI

EXPERIENCE AND THE CULTURAL CONSTRUCTION OF ETHNOMEDICAL KNOWLEDGE

The women in this study expressed themes that reflect ideas culled from the folk, popular, and professional biomedical sectors of the U.S. ethnomedical system and from interpretations of their own experiences. The following discusses some of the major thematic areas found in the study, though different women expressed different themes within these areas and the experiences from which they originated differed, and considers possible explanations for why they are important in women's knowledge of breast cancer risks. In so doing, it illustrates Gaines' five assumptions of a constructivist perspective on ethnomedical knowledge: that it is culturally constructed, that it is a historically created cultural product under construction, that it is meaningful only as people experience and interpret it within their local contexts, and that social interactions such as talk and other communicative media construct, transform, and maintain realities.

WHAT THE WOMEN KNOW

This research has identified two major divisions in women's thinking about breast cancer risks, with several groups within each division, and has also identified variation in knowledge by age and education. As is apparent from the foregoing discussion, groups differed in some and shared other aspects of
causal thinking about breast cancer. Different opinions were held about many
items within categories, but certain categories in general were also sources of
disagreement. Theories about the roles played by injuries, germs, sexual
activities, reproduction-related behaviors, and spiritual agents differed across
model types and age and education categories, as we have seen. But all the
women agreed that some categories and items played contributory roles. All
agreed that at least some of the items included in the categories of
characteristics or conditions of the body, energy forces, synthetic chemicals,
lifestyle, stress, and biomedical interventions were threats.

*Risks to Others*

Comparison to Navajo and Anglo-American Causal Construals

As noted previously, Vaughan and Nordenstam (1991), asserted that
ethnicity is one factor that can account for differences in risk perceptions among
different groups of people. These differences occur through differing levels of
exposure to risks, dissimilarities in general perspectives on risks, and
nonequivalent values on the dimensions that influence risk perceptions. Though,
as noted previously, little is known about the cancer knowledge of other groups
and the current research does not replicate other studies so direct comparisons
cannot be made, examining Csordas’ (1989) Navajo and Anglo-American causal
construals presented in Chapter IV and the findings of this study reveals some
similarities and differences between the ideas of those groups and the African-
American participants in this study. For example, some of the informants in this
study (often older women) referred to cancer as a “sore that does not heal” and
understood cancer's pathophysiological process as rotting, as did Csordas' Navajo informants. Unlike the Navajos, however, some women in this study understood malignancies in the idiom of growth, as did his Anglo informants (though, again, his "Anglo" group included ten African-Americans).

Additionally, no one mentioned several causes that were prominent in Navajo causal construals, such as lightning exposure (other than as a form of electricity, which was also often understood as radiation), animal violation, or ceremonial contamination. Some women did, however, link witchcraft, old age, and exertion to breast cancer. Similar to the prominent causes of Csordas' Anglo informants, the women in this study mentioned heredity, stress (including psychological distress), lifestyle, smoking, alcohol, medication, and x-rays.

Like informants in both of Csordas' groups, some women considered injuries a prominent cause of breast cancer, understanding its mechanism of action primarily in terms of failure to heal like the Navajos rather than in terms of uncontrolled growth, as Csordas hypothesized about the Anglos. In contrast to both Navajos and Anglos, women in this study also mentioned sexual and reproductive behaviors, biomedical interventions in addition to breast implants, medications, and x-rays (for example, mammograms, hormone replacement therapy, and combinations of medications), characteristics of female bodies, germs, chemicals, and spiritual agents as causally related to breast cancer.

Since the methodology in the two studies was different and the present study found much heterogeneity, it is difficult to fully elucidate the similarities and differences in ideas among the participants in this study and Csordas'
informants. As Csordas notes, Navajo ideas seem to reflect some vastly different experiences and a culture that has remained relatively impervious to assimilative pressure (1989: 471), whereas the African-American ideas in this study reflect an incorporation of mainstream American understandings. Some older ideas still hold sway, but as the Buppie group in particular demonstrated, many perceptions of risk are indistinguishable from what we know of other American's perceptions.

**Spiritual Themes: Comparison to Causal Reasoning among the Azande**

As Wardlow and Curry (1996), Gregg and Curry (1994), and Mathews, Lannin, and Mitchell (1994) found in their studies of breast cancer, religion was also the overarching framework for many of the women in the present study. Though the level and form of their involvement with religious issues and practices varied among the women, they were important to all, and all of the women expressed religious themes. The primary differentiating axis between the two major models is ideas about the role of God's will. In all the women's view, a good force or being (referred to by most as God or Allah and considered to be male) is in supreme control of the universe, and evil forces or beings struggle against him.

The women differed in their ideas about whether this deity specifically caused in breast cancer development in individual women or whether "worldly" causes, as they understood them, applied. One way or the other, however, through direct action or through the operation of the "natural order" of things, to the women in this sample, God was the ultimate source of all experience.
The two general models, the Worldly and the Divine, recall Evans-Pritchard's (1937) description of causal reasoning among the Azande. The Azande believed in "natural" causation: for example, carelessness reaped its natural reward. But the Azande attribution framework also explained why unfortunate events happen to particular people who have committed no error. To the Azande, the logical explanation of misfortune that happens to particular people at particular times is witchcraft. Termites eat supporting beams of granaries and people sit under granaries for shade; both are natural occurrences. However, why does a certain granary fall at a certain time on certain people? There is no natural explanation for this event; clearly, in the Azande belief system, the victims must have been bewitched. By the same token, if there is no obvious natural reason for their breast cancer, it must be that God's has willed for some particularly women to develop the disease.

It is interesting to consider why some women invoked God's will as an explanation and some did not, though it was available to these women and they use it to explain other events and conditions. In their study of people's explanations of behavioral events, Lupfer and Layman (1996) found that "most people" (that is, the U.S. college students they studied) use "naturalistic" explanations that are comparable to the Worldly explanations of one major model in this study. Others attribute events to religious causes, though they usually combine them with naturalistic explanations as well, as did the women who held a Divine model in this study.
Lupfer and Layman found that the "characteristics of the problem domain" and people's "social location" were among the factors that influenced whether people chose naturalistic or religious explanations. These would seem to be important factors in this study.

"Characteristics of the problem domain", that is, the specific meaning of breast cancer, could account to some degree for causal ideas in some instances. Women who held a Worldly model did not invoke God's will as an explanation, though it was available to them, because they thought that some control over breast cancer development was possible. To them, one's actions could influence whether one developed breast cancer.

For holders of any of the Divine subtypes, breast cancer was not ultimately preventable through individual actions, though one should do all that one could to stay healthy and not "help the cancer along." Many of these women were aware of biomedically identified breast cancer risk factors, but could see no correlation between them and the women they had known who had developed breast cancer. Given their experience of breast cancer in others, the Azande approach to causality (substituting God's will for witchcraft) was the only sensible one, in their opinion. Lupfer, et al. (1994) refer to this as the "God of the Gaps" hypothesis: [God as an explanation] is "invoked only to explain uncommon behaviors or outcomes and only under certain conditions" (1994:501).

In terms of social location," as noted above, college-educated women tended to hold a Worldly model of breast cancer development regardless of age, indicating increased secular thinking in this group and belief in the efficacy of
personal preventive action. Lack of advanced education is a possible explanation for the religious attributions of most of the members of Group Five (excluding Nora, the nurse-educator), and Group Six who held a Divine model. Their general view of the world was that it held many dangers, most of which were out of individual control. The effects of education on internal or external locus of control have been well-documented by psychological and sociological researchers (e.g., Wood, Hillman, and Sawilowsky 1996), and these effects may be operative for these women.

A second possible interpretation of their religious explanations is Marxist, such as that articulated by Baer and Singer (1992). According to this interpretation, religious explanations reflect impotence against exploitative societal conditions. People who use them unwittingly perpetuate the status quo by attributing control over one’s destiny to otherworldly beings and directing one’s hopes to an otherworldly existence. This interpretation may have some validity for the women in these two groups, though I do not believe it explains the religious ideas of the women of Group Four. Most of the women of Groups Five and Six, however, did seem to take the position that there was little they could do to change their own circumstances and tried to learn to accept the will of God.23

Cultural Critique

In their breast cancer risk knowledge, women expressed a critique of U.S. culture. One aspect of this critique was concern about the processed world. Fears of radiation, pollution, food additives, appliances, pesticides, etc. permeated nearly all the women’s talk. Though many were anxious to get a bigger “slice of the pie”
in terms of material goods, and those who had their “slice” enjoyed it, distrust of U.S. consumer culture was extensive.

Douglas and Wildavsky (1982) account for such fears of technology by features of the social structure. They begin their analysis with “a sense of wonder” (1982:10) at a “cultural change that has taken place in our own generation” (ibid.).

Try to read a newspaper or news magazine, listen to radio, or watch television; on any day some alarm bells will be ringing. What are Americans afraid of? Nothing much, really, except the food they eat, the water they drink, the air they breathe, the land they live on, and the energy they use. In the amazingly short space of fifteen to twenty years, confidence about the physical world has turned into doubt. Once the source of safety, science and technology have become the source of risk (ibid.).

Their explanation for this phenomenon is that,

a complex historical pattern of social changes has led to values that we identify as sectarian being more widely espoused. The sectarian outlook has three positive commitments: to human goodness, to equality, to purity of heart and mind. The dangers to the sectarian ideal are worldliness and conspiracy. Put into secular terms, worldliness appears in big organization, big money, and market values . . . (ibid.).

According to these scholars, U.S. sectarianism is deeply rooted in our history of individualism, fear of public authority, voluntary organizations, and political competition. The U.S. is home to many sectarian, or “border” groups; to Douglas and Wildavsky, "America is a border country" (1982:152). Within this general U.S. sectarian context, African-American women are a border population often particularly removed from power and influence (1982:102). Furthermore, Cornel West (1994), an African-American grounded in a black religious tradition, for example, decries the "black entree into the culture of consumption" and calls it "the gross deterioration of personal, familial, and communal relations among
African-Americans" (1994:55). Border status, coupled with a history of religious disapproval of material consumption and a cultural orientation that values the "natural" over the "unnatural," may combine to make the African-American women in this study particularly fearful of technological risks.

Food contamination, in the form of food additives, for example, was considered by all the women to be a source of breast cancer risk. Repeating themes found in Snow's work, Patricia Turner, in *I Heard It Through the Grapevine* (1993), discusses the pervasiveness of food contamination rumors in African-American culture. An example of this is the rumor that circulated throughout the country that Church's fried chicken contained ingredients that sterilize black men. Turner attributes these fears to the symbolic importance of food and its preparation, and cites Mary Douglas' work on pollution (e.g., 1966).

According to Douglas, "people with minority status in their society are often suspicious of cooked foods as well as protective of the body's orifices," (quoted in Turner 1993:144). To Turner, food contamination rumors "indicate that the black community perceives itself as vulnerable to the hostile desires of the majority population (ibid.).

Another possible explanation for the particular salience of food contamination is the traditional use of food for harm or control of others. For example, according to Snow (e.g., 1993), a woman could add substances to food to "tie" her man to her or to make a him break out in a rash if he was intimate with another woman, and poisons hidden in food could kill or harm hated masters or mistresses during slavery.
Biomedical therapeutics and procedures were suspicious as well for (at least) two reasons. First, ethnomedical ideas about the "Natural" and the "Unnatural" and the folk notion of a connected body bred suspicion about biomedical interventions. According to these ideas, anything that interferes with the natural operation of the body or exposed the body to unnatural forces could cause trouble. Medicines, abortions, birth control pills, breast implants, x-rays, mammograms all are suspect as "unnatural" and should be used with caution and moderation, if at all. And just as Snow's informants, many women in this study repeatedly talked about whole bodies, not disconnected parts. If one part was acted upon, it was sure to cause effects somewhere else since the whole body was connected. If medicine was powerful enough to relieve pain in one part of the body, it was probably doing something else somewhere else. Additionally, combinations of therapeutics could produce synergistic, harmful effects.

Second, distrust of biomedicine is rampant in the black community. Fears of biomedical interventions also reflect the pervasive fears of medical experimentation in the black community (e.g., Vaughan and Nordenstam 1991). Patricia Turner writes,

In 1932, the supposition by governmental agencies that black bodies could be used in ways that white bodies could not took on a particularly gruesome twist when the Public Health Service (PHS; forerunner of the Centers for Disease Control) initiated a forty-year experiment on African-American men at the Tuskegee Institute in Alabama (1993:111).

This infamous experiment "confirmed for many what they already suspected about official medical disrespect for African-American bodies" (ibid.), according to Turner.
Another component of women's cultural critique was explicit anger and frustration at continuing experiences of different forms of communalism: racism, classism, and sexism, as well as the symbolic protests against dominant values discussed above. Some of the women lived in posh suburbs and others lived in public housing, but, all the women in this study had experienced the world in black and white; all had experienced border status. All had personally encountered racism, all had learned or were trying to learn to deal with it, and all had to contend with it as a lurking threat to themselves and their loved ones. Questions arising from experiences and knowledge of racism permeated everyday life: Am I safe walking down this street or into this room? Will my child be insulted, neglected, humiliated, or worse? Will this doctor—or patient—treat me with respect?

West documents the “incessant assaults on black intelligence, beauty, character, and possibility” in this country (1994:136) and Zinn and Dill’s (1994) volume about women of color in the U.S. gives numerous illustrations of racial discrimination against both middle and lower class African-American women. For example, many more black middle class women work in the public sector than in the private, where pay and working conditions are often better. The implication is that, though many black women have “made it” to the middle class, they can only go so far. And they may not even be able to stay there, given budget cuts for social service agencies.

According to this study, if statistics were grimmer for black women, it was primarily because of racism and its attendant poverty, and the poorer conditions experienced by women in general. You can not get good meat in ghetto stores. If
you lived in the inner city, you were exposed to more pollution. Life was more stressful in general. The belief that conditions associated with poverty were risky for breast cancer reflects the women's general perceptions of the poorer health status of African-Americans in this country (e.g., Hummer 1996). Blendon, et al., (1995) found that blacks' perceptions of their abilities to access health care and the actual abilities of a disproportionate number to obtain the basic necessities of life accounted for negative attitudes expressed by African-Americans about health and other social institutions. In the present study, women spoke of black women generically as “always expecting the pits” and being “too busy taking care of others to take care of themselves.” They agreed with scholars who portrayed blacks' limited access to health care that this was the experience of other African-American women, though they themselves did not experience this.

Rhetoric of Complaint

The meaning of breast cancer also included a "rhetoric of complaint" about one's own life as well (Gaines and Farmer 1986). For example, stress figured prominently as a risk factor for breast cancer in most groups' models (excluding Group Four). Women often used breast cancer as a medium to complain about the stress of daily living, relationships with men, and bodily ailments. Jobs were an enormous source of stress to many, particularly professional women, and particularly those women in Group Three. Though many (not just college-educated women) found their jobs exhilarating and were proud of their accomplishments, the toll exacted by the well-known double shift of out-of-home and in-home work was heavy. Others thought of their work as just that.
Motherhood was also a joy and a burden, the best and worst of times. Much of the women's talk was about their hopes and worries about their children, about children they had not been able to have, and about children they had lost.

Other relationships, particularly relationships with men, could also be stressful. Collins (1990) talks about this "love and trouble" tradition in relationships between black men and women, and states, "Black women love their men, but they [men] can be unfaithful and unreliable." Snow also deals with these problematic relationships. She states,

> At best, men and women lead very separate lives; at worst, they share a fundamental distrust of the nature of the opposite sex . . . Women often say that men are 'dogs' who move from one sexual conquest to another; men often complain that women are interested only in the money and gifts that they provide. . . . (1993: 177).

Several informants talked about the emotional pain of discovered infidelities, the lack of material, instrumental, or emotional support from their men, and the everyday strain of living with these "alien" (in Lydia's words) beings. Some women, particularly those in Groups One, Five, and Six, had especially difficult sexual relationships with men that may have contributed to their perceptions that sexual behaviors were risky for breast cancer. Some women were exhausted by men's sexual demands, and on the other hand, some lamented their lack of a sex life and their inability to find a "good man."

For some women in the study, all of whom were members of Groups Five or Six, men had inflicted physical pain. Just as Wardlow and Curry (1996) found that attributing breast cancer to blows to the breast was a way of expressing and protesting those blows, several women in these groups told of physical abuse by
men. Their attribution of risk to injuries would seem to hold the same meaning as for Wardlow and Curry's informants. Others, however, had treasured relationships with the men in their lives. And many of those who complained forgave their men because they understood the difficulties black men faced daily in an often hostile world.

**Local Biologies**

In their talk about breast cancer risks, women expressed themes about the nature of the body and its physiology that reflected “local biologies” (Gaines 1995), the local construction of human biology. As we have consistently seen, many themes about the workings and constitution of the body found by Snow were echoed by women in this study. For example, women talked of “mind” as separate from body, reflecting the Cartesian mind/body dichotomy. However, they are intimately connected, and “mind over matter” reflects the impact “mind” can have on body: if the body is sick, the course of the illness is influenced, if not determined, by one's ability to maintain a positive, peaceful, usually spiritual, outlook.

This study found many other interesting ethnophysiological ideas about how the body worked in general and carcinogenesis in particular that combined notions from the folk, popular, and professional sectors. For example, immune system function was understood by many as elimination of intact impurities rather than biological degradation and elimination of metabolic byproducts.

Other interesting ideas about carcinogenesis included putrefaction of red meat, internal injuries (including those resulting from sexual activities) that cannot
heal because they are deprived of the beneficial effects of light and air, or smoke that is not eliminated from the body because it becomes trapped in female breasts. Female hormones were dangerous because of cultural notions of balance and their capacity to cause changes.

Bodies are also understood to be genetic products, and to some, they represent a literal continuation of ancestors' bodies. Whether or not one understood the nature and operation of genetic inheritance, to all of these women, it was a powerful determinant of how any individual body would look and perform. Additional themes were notions of the immune system as the defender of the body, whether through elimination or destruction of impurities, and of people with effective immune systems as "strong" people (cf. Martin 1994) who could withstand the inevitable assaults to the body from the outside. A person's immune system was inherited, but it could be affected by prenatal exposures and by lifestyle behaviors and hygiene.

One's body is multiply determined: a person inherits certain bodily strengths and weaknesses, but these can be enhanced or diminished by the body's care and feeding. Phenotypic characteristics were downplayed as unimportant to bodily functioning. Many women insisted that "on the inside," all bodies worked in the same way. Skin color and hair texture had nothing to do with how healthy one was or how the body worked.

Moral Judgments

As noted in Chapter I, Mary Douglas found that "... risk generally turns out to be connected with legitimating moral principles." Moral values found by Snow...
were operative in this study as well. In this study, behaviors that are often morally regulated, such as sexual behaviors and other lifestyle behaviors like smoking and drinking alcohol, were often considered dangerous to one's health as well.

Women who had children too early, women who lived a "party" lifestyle, women who drank and smoke, women who had sex too often with too many partners were all placed at risk, according to several women, because of these behaviors.

Furthermore, "Man's greed," (as opposed to human greed or woman's greed) as evidenced in our processed, unnatural world represented another moral judgment.

Many other authors have discussed the moral dimension of risk assessments. For example, Prohaska, et al., (1990), in writing about AIDS, note people's tendency to associate risk with censured behavior. The corollary is that good behavior will be rewarded. As Regan, Snyder, and Kassin (1995) write, "the notion that glory and honor will come to those who 'do good' has been and remains a widely accepted tenet of many American religious and social philosophies" (1995: 1081).

**Risks to Self**

The women in the study applied the ideas outlined above to themselves to assess their own risk. As we noted in Chapter V, the optimistic bias was operative for many women in this study. Women usually differentiated themselves from those at risk, but they did not always do so. Personal risk perceptions were again culturally constructed: when talking about risks to themselves, the women expressed culturally constructed notions about their value as individuals and about the nature of selves.
One’s own body

The women expressed a variety of ideas about their own bodies, none of which was mutually exclusive. Most women expressed a genetic conception. As noted earlier, bodies were not clones, but were literally continuations of forebears by virtue of possession of their genes. Many women cited direct evidence of the power of genes as they observed physical (and personality) traits that had been passed on. From this, many thought their bodies would react as did the bodies of ancestors with whom they identified. Many thought that their genetic heritage conferred strength, and thus protection against breast cancer. Others observed that they came from cancer families, and thus, they were at risk of developing some kind of cancer as well. For example, though they both thought that genetics played a role in breast cancer development, both Annette and Lydia felt that they had inherited strength, rather than weakness and risk from their families.

Another body idea expressed by the women was their sense of their own bodies vis-à-vis the U.S. mainstream cultural ideal of the slender, fit body (e.g., Bordo 1993). Most of the older women and many of the younger felt their bodies fell short of the ideal. Most of these women expressed dissatisfaction with their bodies only in terms of the effects of excessive weight on their health. For some, this shortfall placed them at risk of developing breast cancer.

Another orientation to their own bodies was in the women’s identity as black women. Though black bodies, hair, noses, lips, and particularly skin color are customarily devalued and degraded in the U.S. (e.g., Bordo 1993; West 1994), women were at a loss to understand why these superficial differences are so
important in this country. To them, black bodies are only different on the outside; on the inside and, all bodies look and work the same. Women's bodily sense of themselves often was one of a tired and used, yet strong and enduring body. And as many women noted, epidemiological studies that find excess incidence of diseases in African-Americans are suspect: why should there be excesses when bodies are the same inside? Yet to some, being black did increase their risk of developing breast cancer; sometimes this implied acceptance of their understandings of epidemiological information and sometimes it represented a commentary on the general dangers of being black in this country.

An additional body idea was the women's feelings about their breasts, and the meaning of their possible loss to breast cancer treatment. Nearly all the women said, either explicitly or implicitly, that their breasts were just a part of the body, that they were there primarily to feed babies, and that they as people were much more than just their breasts. But, breasts have enormous cultural significance in Western culture. In Lupton's words, breasts are "the most powerful symbol and outward sign of womanhood. The breasts are symbolically where female sexuality and the ideal of motherhood meet . . . ." (1994: 86). She refers to the "fetishizing of the breast in Western society" (ibid.).

In this study, however, the participants' comments generally indicated acceptance of their breasts' appearance and a general matter-of-fact attitude. Negative comments (usually by younger women) were humorous disparagements of [lack of] size. A few older women made remarks about sagging breasts. No one said she would consider breast surgery, and only one had considered breast

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reduction to relieve her discomfort. Breast implants were universally regarded as risky for breast cancer and no one could understand why any intelligent woman would consider them.

It has been suggested that breasts do not have the same significance for African-Americans as Euro-Americans; as Lydia said, for African-Americans, the "beauty's in the booty [the hips]." Some women agreed and some disagreed with this statement, however, but most seemed comfortable with the breasts they had. Some women's experience of their breasts also included pain and lumps. Experiences of pain and lumps resonated emotionally with the women, and they constructed their risk perceptions from these compelling experiences. Painful breasts or lumpy breasts were breasts at risk.

Akin to comments about sagging breasts, another idea about the body was expressed in women's comments about their aging bodies. For some older women, the fact that they had reached a certain age indicated their strength and their ability to survive. They knew they had to die of something, but they had no sense that that something would be breast cancer. Breast cancer was associated with unnaturalness, and weakness, which they did not associate with themselves. Others observed their bodies' deterioration and, if cancer was understood as a breakdown, then their bodies were vulnerable.

Additionally, women expressed ideas about their own body's health and fitness. Many thought of themselves as at least trying to live a healthy lifestyle, and thus their risk of developing breast cancer was reduced, if not eliminated. Some women clearly endeavored to keep their bodies in good shape by eating fish
and chicken rather than red meat, vegetables, and fruits, by regular exercise, by
not smoking, and by not overly indulging in alcohol. All the women knew about
these healthy lifestyle behaviors from exposure to the popular media, to
professional biomedicine, and from the folk sector.

Even if women acknowledged other factors that increased their risk of
developing breast cancer, the cultural power of these behaviors is such that just
making efforts in their direction served to reduce women's perceived vulnerability.
These trade-offs were often unbalanced. For example, a woman may have had
her age, her genetic inheritance, her diet, and her reproductive history as
(biomedically identified) risk factors for the development of breast cancer, but if she
considered herself to be good at dealing with stress or if she ate fruits and
vegetables, this positive outweighed the other negatives. Merely trying to do better
often removed one from the list of likely victims of breast cancer.

Finally, women thought of themselves holistically, but at the same time as
made up of different parts. Minds affected bodies and the mind/body distinction is
implicit in this formulation. If a woman was able to control her mind, whether
through the cultivation of a religious sense of feeding the spirit within and
developing an attitude of acceptance and trust in God to work for the good or by
having a positive attitude, then mind could control matter, the body. Talking in
terms of controlling one's mind or one's thoughts also implies that the self is
located somewhere other than in one's mind.
Acceptance or denial of risk status

Acceptance of risk

Biomedicine defines all women as being at risk of developing breast cancer by virtue of their gender, and other factors may increase this risk. What does it mean to the women in this study to consider oneself at risk? The women who felt most at risk in this study were those who had grandmothers who had suffered it, the nurse educator who was very aware of biomedically identified risk factors, those who had lumpy breasts, those who had violated their own moral precepts, and those who were vulnerable due to the mysteries of God's will.

Some women, such as Lydia, felt that they were at risk because it might be the will of God that they develop breast cancer and there was nothing they could do about it. This could perhaps be called fatalism by some. For example, Powe (1995) found fatalism about one's health especially high in elderly African-Americans. She states that this fatalism is usually attributed to "perceptions of hopelessness, worthlessness, meaninglessness, powerlessness, and social despair. These perceptions may be reinforced as [people] are caught in a web of poverty, late cancer diagnosis, and cancer deaths in the family and community."

Such explanations, however, do not explain Lydia's ideas, and those of others like her whose experiences and self-perception do not fit this model. Lydia is not "caught in a web of poverty." She does not perceive herself or her life to be "hopeless, worthless, meaningless, and powerless." She seems to have a strong internal locus of control. Yet she invokes God's will as the ultimate explanation of breast cancer. Lydia came to her conclusions about breast cancer not through
generalized experiences of powerlessness, but rather through her particular experiences with breast cancer and her interpretation of them. Her observations of others who had developed breast cancer though they had exemplary lifestyles, middle-class status, and adequate medical care have engendered her so-called fatalism.

Denial of risk

Those who do not perceive themselves as being at risk are often said to be "in denial." What is the meaning of this denial to these particular women and what are its cultural bases? As we have seen in this study, some women differentiate themselves from those at risk on the culturally constructed bases of genetics, ideas about aging, ability to handle stress, and lifestyle and moral behaviors. Such women have been taught "to trust their own self-definitions and value themselves." (Collins 1990:51). Both age and education were "empowering" as both college educated and older women expressed a greater sense of control of their lives. They did not minimize their stress, but they practiced coping methods they had learned.

Annette serves as an example of the woman in denial. She basically felt in control of her life. Though she has experienced health problems, she says she works with her body and has found health care providers who work with her to maximize her well-being. She was also in control of other aspects of her life. In her heart of hearts, in her gut, she trusted her body and herself and simply did not feel at risk of developing breast cancer.
A further meaning of denial is suggested by Sobo (1994). She writes, "For many African-Americans risk denial is essential for maintaining group pride and for claiming equal rights" (1994:38). Several women in this study were disgusted with epidemiological studies that found increased risks in blacks of diseases that were thought to have behavioral causes. They were tired of being accused of suffering stigmatizing diseases more than other groups and they were tired of being blamed for them. They repeated that if such findings were true, the real causes lay in poverty and unequal access to health care and other commodities.

A third possibility is that individuals who "denied" their risk were making statements about their spiritual health. They were expressing their faith, trust, and acceptance that whatever God had in store for them was as it should be. Additionally, some researchers have found, for example, that religious beliefs actually empower people to adopt healthy lifestyles (e.g., Ozorak 1996).

Religious teachings also emphasize turning one's life and cares over to God. To worry about anything is to be negative, to not have faith, to not trust in God. Many women in this study differentiate themselves from those at risk by a positive view of themselves; they try to keep the negative outside and nurture the positive within. The roots of this positive orientation lie in the understanding of the world as a struggle between the forces of good and the forces of evil, a war between God and a busy devil. Whether the contemporary women in this study express this worldview in a religious or a secular idiom, that is, whether they "rebuke the devil" or talk about "living positively," whether they practice Christianity or Islam, whether they are educated and sophisticated or otherwise, and no matter
their age, they had learned from someone to praise God (or Jesus) for their blessings no matter how impossible their lives. To worry or to think negatively about oneself or one's future is to feed the devil rather than the Holy Spirit. To think positively, in this context, to not consider oneself at risk, is to be in right relationship with God.

**Variation by Age and Education, and Other Experiential Variables**

The participants' knowledge varied by age and education. As noted in Chapter I, researchers have found that older women tended to be less knowledgeable about the risk of increasing age and breast cancer and not to worry about or to hold “false” beliefs about breast cancer. In the present study, for example, older women such as those in Groups One and Two were more likely to hold an injury model of breast cancer development, to think in general that excessive “use” of the breasts was risky, and to perceive dangers in “opening” the body during surgery. Non-degreed women were more likely to believe that use and abuse of the body was risky, but also that supernatural forces played a role in the development of breast cancer.

This study supports previous research (see Chapter I) in finding that older women (regardless of education) were least likely to consider themselves personally at risk. The college-educated women over the age of 50 in particular did not perceive themselves to be at risk. More research is needed to determine if overcoming formidable obstacles to achieve what they had achieved in their lives has increased the tendency to heed the strong cultural imperative to think positively. In this study, it appeared that to consider oneself at risk is to think
negatively. Though these women knew that "something" was going to eventually cause their deaths, what that might be was not a fit topic for contemplation.

Other experiential variables, such as region in which one was raised, reproductive experiences, and knowing others with breast cancer were allowed to vary. One variable theorized to be important in risk perceptions (see Chapter II), is prior experience with the threat (e.g., Gochman 1977; Vaughn 1993b). In this study, though I allowed it to vary, this variable was not associated with particular risk knowledge. For example, women whose close friends and relatives had suffered with breast cancer held both Worldly and Divine models and were members of each of the model groups.

**HOW THE WOMEN KNOW WHAT THEY KNOW: THE EMBODIED MIND**

*Pluralism*

Mathews, Lannin, and Mitchell (1994) found that black women in North Carolina drew upon several cultural models in formulating their understandings of breast cancer. Snow (e.g., 1993), Flaskerud and Rush (1989), Gregg and Curry (1994), and Wardlow and Curry (1996) also found that biomedical notions coexisted with popular and folk ideas in their informants' ethnomedical knowledge.

In *Walkin' Over Medicine*, Loudell Snow writes,

> [It is] wrong to see [folk ethnomedical beliefs] as an alternative completely separate from the orthodox medical system, however, or uninfluenced by the popular version of orthodox medicine that is widely transmitted by the mass media. Jacie Burnes was perfectly able to talk about roots and psychology in the same breath . . .and Marya Smith was perfectly willing to swallow aspirin and a prescribed narcotic and the Reverend Hastings' mixture when she was so ill. This intertwining of traditional, popular, and biomedical ideas results in a system that is constantly evolving to accommodate changing needs — it is broad enough to include
pathological agents as diverse as sorcery and viruses in the etiology of illness and it is flexible enough to incorporate a new problem such as AIDS when it appears.

So it was in this study; the women, regardless of age or educational level, selected and combined knowledge from the professional, popular, and folk sectors outlined in Chapter II in creative ways, with culturally constructed experience and interpretations of that experience serving as the basis for selection. Sometimes the women accepted biomedical knowledge and sometimes they used their own experience and the experience of others to challenge professional knowledge of risks and create their own.

The Biomedical Sector

For example, some biomedically identified risk factors were accepted by the women as risk factors for breast cancer almost without exception, and others were rejected. The case of family history is an example of the congruence of expert and lay knowledge. Genetic explanations are extremely attractive (Gaines 1997) in all three sectors of U.S. ethnomedical knowledge. The search for and discovery of genes that are responsible for nearly every condition of humanity are faithfully reported in the popular press. The women's acceptance of this knowledge reflected their participation in mainstream U.S. culture. It also reflected their folk notions of the person as a continuation of those who have gone before. Additionally, the women also used many biomedical terms such as cells, tissues, remission, and metastasis. They constructed their own meanings, however, for these terms. For example, many spoke of the immune system, and considered its
strength an important factor in whether a person developed breast cancer or not and in their general ideas about bodily strength and weakness.

On the other hand, other biomedically identified risk factors such as reproductive behaviors and time of menarche that influence lifetime exposure to estrogens made little sense to the participants. Reproduction was seen by most women as a natural activity; breast cancer is most unnatural, it is something "gone wrong," something that shouldn't be there. It is often associated with unnatural (as in synthetic) causes. For natural reproductive activity to be related to unnatural breast cancer did not seem to make sense to many women (except in the case of having babies too early).

This resistance to biomedical knowledge at least partially reflects a culturally constructed epistemological orientation that is suspicious of so-called experts. Collins repeats an old saying, "A heap see, but a few know." According to her, "blacks are quick to ridicule educated fools" (1990:208), though this is hardly limited to African-Americans. In Chapter II we saw that to these women, a medical degree does not guarantee wisdom and doctors are not necessarily to be trusted. The experience of some African-Americans, for example, with the Tuskegee experiments (e.g., Powe 1995), and sometimes their own personal experience confirm this for study participants. Additionally, all informants stressed the limitations of biomedical knowledge. Even if this expert knowledge is trustworthy, there is much that is unknown. Study participants repeatedly expressed their reliance on their own judgments about what is true.
The Popular Sector

It is apparent from the data that women also drew on popular knowledge of breast cancer risks. The data provide examples of how the meaning of cancer to these women reflects popular meanings including fear, mystery, debilitation, death, shame, victim-blaming, militarization, and hope, and that breast cancer in particular means loss of femininity and self and is particularly intimate and sexual. Many read popular magazines for health information and watched and listened to other popular media. As Prohaska, et al., (1990) note, the intense media attention to breast cancer makes it more salient to the women than other afflictions. As women exposed to the information the media present, breast cancer becomes a culturally available suitcase in which people pack their own meanings.

For example, the pervasive fear of red meat and stress and the importance of low-fat diets and exercise expressed by the women in this study echoed popular themes in U.S. culture, as well as folk themes found by Snow. If stress and red meat are perceived as generally dangerous, then this danger was transferred to risk for breast cancer. If low-fat diets and exercise are perceived to be healthy then they became healthy in terms of reducing breast cancer risk. Additionally, the women's understanding of environmental toxins and physical forces such as radiation and electricity as risky for breast cancer illustrates belief in information primarily available in the popular, sometimes anti-biomedical, media, though these ideas are also extant in biomedicine, illustrating the overlap among sectors. Additionally, all this information also fits ideas in the folk sector that were learned at elders' knees: this is a greedy, processed, stressful, world and thus, it is perilous.
The Folk Sector

Regarding the folk sector, we can see many other examples of the influence of the folk health culture described by Snow and others in the present study. For example, the holistic sense of the body discussed in Chapter II is evident in these narratives. A healthy person is balanced in terms of body, mind, and spirit; the entire body is connected; illnesses attack when the person is weak or out of balance, and they may bide their time until this weakness or imbalance occurs. Disease agents enter the body through openings and then are free to move to weak spots.

Another folk belief held by some of the women was that conjurers had the ability to send sickness to others, a belief examined in Chapter II. The majority of the women in this study did not think that conjurers could cause someone to develop cancer, but most were at least aware of the traditional beliefs, and some had actually experienced this phenomenon. One admitted to working a mojo on her philandering husband. Others did not want to “go there,” indicating that an inkling that such things might be possible lurked somewhere.

Additionally, a folk notion of heredity may have been expressed by the women who felt at risk because a grandmother had had the disease. One woman said that she had been taught that hereditary traits skipped a generation.

Furthermore, the theme of action Snow found so important also was apparent in much of these women’s narratives: God is in charge, but He gives people tools, and each individual must use these tools and do her part to stay healthy.
Finally, as repeatedly noted, religious ideas influenced all the women in this study and they impacted the women's ways of knowing as well. To many, God, the Holy Spirit, Jesus, or the Bible (or Koran) were sources of information and guidance about how to live. If the expert, the doctor, knows anything, the knowledge, or at least the ability to know, comes from God.

Knowledge and Experience

As noted in Chapter I, Gaines (1995) wrote that [ethnomedical knowledge] is based upon embodied experience interpreted in light of ethnomedical theories of illness," (1995:287) and that for Csordas (1990), the body is both object and subject of culture. As we have repeatedly seen in this study, the women created knowledge from the raw material of ethnomedical theories they had learned from various sources and from their individual experiences. Not only did the experiences that arose from belonging to specific age, education, and ethnic cohorts in the general U.S. context contribute to their knowledge, but their own inner voices, their own powerful sensory experience demanded interpretation and shaped what they knew.

As noted above, Gaines (1993) discussed lay people's ability to be natural empiricists in assessing risks rather than relying on poorly comprehended and little-trusted statistical probabilities. Gilligan (1982) and Belenky, et al. (1986) stress that women are "connected knowers:" the experience of significant others is critical in what women know. Collins articulates this position in her discussion of sources of African-American knowledge. "With us, distant statistics are certainly not as important as the actual experience of a sober person" (1990:209).
Cornell West also echoes this observation in his metaphor of the black person as a “jazz freedom fighter” who has a certain “mode of being in the world, an improvisational mode of protean, fluid, and flexible dispositions toward reality suspicious of ‘either/or’ viewpoints, dogmatic pronouncements, or supremacist ideologies” (1994:150).

The data from the present study are full of examples of women measuring hypothetical risk information against the experiences of real others, including themselves. Identified risk factors were often dismissed by the participants because they have known too many people who have developed breast or other cancers who did not have those risk factors, and too many people who have not developed it who did have the risk factors. In real life, statistically significant risk factors are poor predictors; they carry little meaningful risk — or safety — for any individual.

As Mathews, Lannin, and Mitchell (1994) point out, creating metaphors is another experience-based way of making sense of something new. “By drawing analogies from physical experience, metaphors assist people in conceptualizing non-[visible] processes in a concrete visual way that makes these experiences more tangible and thus accessible to mental processing” (1994:793). For Collins, “experience as a criterion of meaning with practical images as its symbolic vehicles is a fundamental epistemological tenet in African-American thought systems” (1990:209). As we have seen, my informants made rich metaphors from their experience: plants (cf. Mathews, Lannin, and Mitchell), rotting meat, vacuum
cleaners, Pac-man, tapioca pudding, sponges, and light switches all were used to represent the nature and pathophysiology of malignancies.

Jenkins and Valiente (1994) articulate an understanding of the body as both created by and creator of experience. They critique "conceptualizations of the body as a "tabula rasa on which culture inscribes its codes." They write, "Rather, we are impressed with the degree of intentionality and agency of the body in creating experience." The body is not only created by the cultural and sociopolitical context, but is the seat of "agency and intentionality through resistance, denial, reactivity" (1994:164). Their observation is an example of what Lock (1993) is referring to when she states that anthropologists "no longer look at knowledge as cognitive only" (1993:136). In so doing, anthropologists are attempting to collapse the nature/culture and mind/body dualities.

When asked how they know what they know, women in this study said they look at information and its sources, assess its trustworthiness, and determine if the information makes sense. In this study, the women's emotions help them to know what they know at any given time. Truth felt right at that particular time. For some women, this "feeling right" was experienced as the voice of God or the Holy Spirit guiding them to the truth. Others spoke in secular terms about the sensation of sureness and the signals their bodies give them when something is true or not. Some look for signs to tell them what is true or which path to follow (cf. Snow 1993); some listen to dreams (ibid.); others notice if things are going "smoothly" or are falling into place. All are embodied knowers: intuition or gut feelings shape what they know. The women actively choose which signs, dreams, and events to
attend to by listening to or feeling bodily signals. The gut feelings, the intuitive experiences observed and articulated by the informants are empirical evidence of the agency referred to by Jenkins and Valiente. Furthermore, knowledge that felt right on a precognitive, intuitive level often expressed resistance to expert knowledge, often could be interpreted by others as denial or inflated fears, and certainly constituted emotional reactions to the world.

Anthropologists are beginning to take note of this phenomenon. For example, Robbie Davis-Floyd and Elizabeth Davis (1996) have examined the role intuition plays in the practice of female midwives. Their informants, too, experienced this knowing as an inner voice that was understood as one’s own but that was only available if one was connected to one’s “deeper” self, to the birthing mother, and sometimes to spiritual others.

To acknowledge this way of knowing is not to reinforce any associations between women or lay people and emotional knowledge or between men or experts and objective knowledge, nor does it privilege so-called objective" knowledge. Ample evidence exists that men and experts also experience and rely on gut feelings (e.g., Hahn 1985). To know in this way may be a universal human experience. Strathern (1996) quotes Mark Johnson:

Understanding is the way we ‘have a world,’ the way we experience our world as a comprehensible reality. Such understanding, therefore, involves our whole being – our bodily capacities and skills, our values, moods and attitudes, our entire cultural tradition (1996:182).
CHAPTER XVII
IMPLICATIONS FOR INTERVENTIONS AND FUTURE RESEARCH

INTERVENTIONS

This study’s findings have several implications, both for the development of breast cancer education interventions for African-American women and for future research on risk perceptions and the cultural construction of ethnomedical knowledge. First, some authors decry the culture of risk that biomedicine has created and the concomitant alienation from our own bodies that women may feel as we exaggerate our risk of developing breast cancer. As Wardlow and Curry (1996) state, “A 'peaceful life with positive thinking' [a wish expressed by one of their informants] about our breasts may not, at the present time, be possible” because of this culture of risk. Others criticize optimistic biases and denial.

The bottom line is that women do develop and die from breast cancer, and prevention efforts, whether primary or secondary, can save lives. A balance between undue fear and unwarranted optimism must be achieved so that women adopt preventive behaviors known to be helpful. It is clear from this and other studies that the knowledge these women have of breast cancer and its risks is not correct in biomedical terms, though there is variation by age and education. For example, while a family history of breast cancer substantially increases one's risk of developing the disease, lack of a family history does not eliminate risk, as was thought by many informants. Generally, a higher level of education was empowering in that it led more highly educated women to seek information from
many sources. Additionally, higher levels of education enabled women to better understand biomedical information, but it did not guarantee accurate knowledge, however, and it certainly did not promote unquestioning acceptance of biomedical information.

In previous chapters, research was cited that shows that current models of risk assessment (such as the Gail model) do not accurately predict women's own risk assessments, at least in part because the components of the model do not conform to the women's own explanatory models of breast cancer. Including lay etiologies such as those identified in this study in such models may increase their predictive power. Including lay ideas would also aid biomedical professionals to better understand women's etiologic and prevention ideas and their variation, and thus, to design interventions that take women's knowledge into account.

Prohaska, et al. (1990) argue for better understandings of the processes that influence risk perceptions so that accurate risk perceptions can be promoted in the hopes of changing behavior. On the other hand, Sobo (1994), in writing about HIV/AIDS interventions, says that HIV/AIDS prevention interventions based on a "rational action model" fail, partly because even when women know the biomedical facts about HIV/AIDS, cultural, emotional, and cognitive factors diminish their perceived susceptibility, affecting their ideas about what constitutes rational action. She argues that biomedical risk-related knowledge is not the kind of knowledge that women base their decisions on. In short, accurate risk knowledge may or may not affect behavior.
Whatever its behavioral effects, however, the women in this study want and are entitled to the best information available so that they can make informed decisions about preventive behavior. This information should be transmitted in ways that are most conducive to its hearing. First and most obviously, health professionals need to be sure they provide this information to their African-American patients. Some women in this study mentioned that their doctors had never recommended mammograms though they were in age groups for which the procedure is recommended.

Secondly, health care providers must communicate in ways that encourage trust. As Frankenberg (1994) states, “Health advice must use emotionally, rather than mathematically, appealing rhetoric” (1994:1327), attesting to the emotional bases of what is considered to be true. This study's results have echoed other studies in identifying effective means of conveying information. For information to be heard and heeded, the source must be trustworthy and the information must be grounded in stories of real experience. Biomedical professionals need to look people in the eyes, answer their questions, ask questions of them, listen to them, admit when they do not know, and generally communicate caring and concern. They need to be aware of and sensitive to the long history of medical abuse and neglect suffered by African-Americans, and not attribute all reluctance to fallout from the Tuskegee experiment. They need to be aware of and sensitive to alternative understandings of the body, disease, technology, and healing. Above all,
information must resonate emotionally with the hearers; they must feel that the
information is true and that the recommended course of action is the right one.

Sobo (1994) also writes that developing health promotion messages that
"appeal to normative cultural values and enhance self-esteem" (1994:38) may be
effective. This study has identified many cultural values that underlie the
women's ethnomedical knowledge that can be used in interventions. For
example, reframing breast cancer information in a positive way may increase its
acceptability to African-American women. Most women will not get breast
cancer; for them, "denial" is accurate. So, low-fat diets and exercise can be
promoted positively as health-enhancing rather than negatively in terms of risk
reduction. Health professionals can promote mammograms and BSE as
reassurances women that all is well, as it most likely is, rather than portraying
the behaviors as "going on a cancer hunt." Reframing promotion messages in
this positive light will allow women to feed the spirit of positive thinking, a
culturally valued orientation to the world, rather than feeding the devil of
negativity.

But it may be equally dangerous to convey a false sense of security. The
relationship between family history and breast cancer is particularly emphasized
in the biomedical and popular sectors, though there is evidence that its role is
less than has been thought (e.g., Trock 1996). As we have seen, many women
in this study discount their own vulnerability because they are not aware of
anyone in their family having breast cancer. Health promotion messages must
counter this pervasive idea, since, as noted earlier, over 75% of women who
develop breast cancer have no identified risk factors, including family history of the disease.

The study has also found that personal risk perceptions vary by age and education groups. One group identified in this study as having particularly low perceptions of personal risk are college-educated women over the age of 50. According to some epidemiological evidence cited earlier, however, this group may be at higher risk of dying from this disease. These results suggest that education efforts targeted to this group should be tailored to their specific ideas and needs. The suggestions outlined above may apply especially to this group of women. For all women, health information that comes to them in church, masjid, or sorority or professional meetings, or through trustworthy mass media, and that is communicated by peers with whom the women can identify could be effective. An example of this effort in Cleveland is the group, Minority Women Uniting Against Breast Cancer.

FUTURE RESEARCH

In terms of future research, though I collected data on many variables, including region of the country each woman was born and raised in, ethnic mix, religious affiliation, marital status, childbearing and breastfeeding history, and whether they had known someone with breast cancer, I did not analyze the results according to these variables, but, rather, let them vary. Future analyses of these data that construct etiologic models based on these differences, as well as analyses that examine differences in causal thinking according to personal overall risk perceptions, could be fruitful.
Also, quantitative studies with large samples of women that incorporate the findings of this study could further elucidate relationships among personal demographic and experiential characteristics and risk knowledge in African-American women. Such studies could lead to interventions tailored to specific groups of African-American women, rather than interventions based on the essentialist findings of previous research. Further studies are also necessary to confirm or disconfirm the etiological models presented here.

Additionally, it is necessary to compare the findings of this study to other groups. Though this study briefly compared Navajo and Anglo beliefs found by Csordas, more work on different groups is needed to understand whether African-American ideas are different enough to justify further research that juxtaposes them to other ethnic groups, usually Euro-Americans. Comparisons among different groups of Euro-Americans using this methodology would be also interesting. The methodology could also be extended to studies of men to examine cancers that threaten them exclusively, such as prostate and testicular cancer, as well as to other cancers. Furthermore, this methodology can be employed to study the meanings of other sicknesses in this and other populations. I have argued that when the women talked about breast cancer, they were talking about their lives and concerns. Comparisons with other sicknesses would shed light on the specific meanings of different maladies, and confirm or disconfirm the specific meanings of breast cancer found here.

Learning more about lay etiologies can suggest new areas of scientific research. For example, many women held an injury model of cancer causation;
Wardlow and Curry (1996) report that there is now some evidence to support this idea. Popay and Williams (1996) emphasize the potential of lay knowledge. Given the uncertainty surrounding every aspect of breast cancer, if there is any plausibility at all, scientists can investigate some of the etiologic theories expressed by the women in this study, including, for example, injuries, putrefaction, and interactions among medications.

This study participants' experience of the processed world is another example. A National Cancer Registry enabling investigators to identify clusters of malignancies in now widely-dispersed people who may have shared some exposure is a beginning and necessary step in studies of the effects of environmental pollutants. Studies that look at the effects of combinations of exposures and of exposures at different points in the life cycle must also continue, though the difficulties in conducting these studies are enormous.

Additionally, studies that further elucidate the relationship between macrolevel forces and health and disease are needed to counter the biomedical and often the popular tendency to locate the causes of illness in individuals rather than in social relationships. Most of the women in this study understand the connections between socioeconomic status, ethnicity, and illness; political organization and action is necessary so that others (e.g., legislators) who are in a position to alter social relationships in the direction of equity and justice have a better understanding of them as well. Health communication efforts that join social scientists and media professionals could be one effective way of making
these connections known to the American public in a popular medium and
entertaining format that would encourage such political action.

Another area for further investigation is the effects of the culture of risk on
people’s relationships to their bodies and their perceptions of biomedical
information. As we saw, much risk information propagated in the media is
dismissed because it is so often refuted. As Skolbekken (1995) writes, "... we
this inundation with risk information is crying wolf too often and having ill effects
in terms of preventive behavior is as yet unknown.

On the other hand, as noted above, some warn of women’s exaggerated
fears of breast cancer. This study suggests that women may answer
affirmatively to survey questions about whether they perceive themselves to be
at risk, but when probing questions are asked, the optimistic bias is operative
and most women do not consider themselves to be at risk, contradicting findings
about inflated fears. Further studies can confirm or refute this finding, but if
confirmed, it further challenges the epistemological assumptions and conclusions
of studies that rely exclusively on survey methodologies, and it questions policies
that are based on such studies.

More in-depth qualitative investigations into the cultural bases of risk
perceptions are also needed. This study has just skimmed the surface of many
interesting research questions. Ideas about cancers and breast cancers, their
etiologies and risk factors, religious explanations, the workings of the body,
moral values, the particular contexts that call forth different ideas, and intra-
ethnic variation in these notions and processes all require further investigation if we are to better understand these issues.

Furthermore, the relationship of human embodiment and cognition is a fertile ground for anthropological research. Intuition, or gut feelings, may be a universal way of knowing, but as this study has hinted, culture shapes the experience itself and how it is interpreted. Cross-cultural studies of intuition will further our understanding of how this phenomenon is experienced and interpreted differently and lead to a better understanding of the cultural construction of ethnomedical, and all, knowledge.

Finally, though peripheral to the study’s questions, it suggests two additional areas of investigation. First, I found some disturbing evidence in a few women of continued psychological distress resulting from having an abortion if the woman who has had the abortion perceives it to be immoral in any way. Such distress may impact seemingly unrelated health behaviors, such as screening for breast cancer, in unknown ways. Additional research into the long-term psychological effects of having an abortion is necessary to adequately counsel women contemplating or recovering from an abortion. Secondly, Rhonda, the former nurse’s assistant, made equally disturbing statements about her racist treatment by patients. Medical anthropologists usually advocate on behalf of patients; her testimony suggests that the experiences of providers at the hands of patients also warrant investigation.
CONCLUSION

In sum, this study has answered certain questions and suggested many more for future research to address. The study began with certain questions: 1) What does a sample of African-American women in Cuyahoga County, Ohio think are the risk factors for developing breast cancer? 2) How do these women assess their own risks? 3) How do these ideas vary? 4) How is this knowledge created? and, 5) What are the cultural bases of this both this knowledge and the process of knowledge construction itself?

In answering these questions, the study has helped to unpack the enigmatic expressions, “breast cancer,” and “risk”, and, in so doing, contributes to the ethnography of African-American ethnomedicine. In contrast to Snow’s emphasis on an exotic “hoodoo museum” (Fox 1995), this study demonstrates the heterogeneity of African-American ethnomedical ideas and the content of those ideas, and the pervasive influence of the U.S. biomedical and popular sectors on them. Whereas previous studies have found that African-American women approach breast cancer from a religious framework, this study has found differences in the application of this framework.

The study has identified what is perceived to be dangerous regarding breast cancer, who is perceived to be at risk of developing the disease, and why. I have found 12 categories of items my informants considered risky for the development of breast cancer, and presented six different model groups of breast cancer risk knowledge within two major models based on ideas about God’s will. I have identified those items perceived to pose personal risk. I have
elucidated ethnophysiological notions about the body and carcinogenesis. I have also discussed how women assess their own risks, examining the meanings of both optimistic biases and inflated fears. I have examined variation in ideas according to age and education. I have also elucidated the culturally constructed logic and themes that underlie knowledge about breast cancer and its risks.

These findings are both empirically and theoretically important. Women must be convinced that both primary and secondary preventive behaviors are appropriate to the disease they are supposed to prevent. To paraphrase Paul Slovic again, (see Chapter II), we must understand how women evaluate risk information in conditions of uncertainty to begin to understand health behavior. Women have choices about what is dangerous, the dangers they will attend to, and the preventive behaviors they will adopt, if any. Understanding women’s concerns, ethnophysilogic ideas, causal theories, ideas about mechanisms of action, values, and worldviews, and why they make the choices they do is critical in helping women to make healthy choices. As ample experience in health promotion has demonstrated, ignoring people’s ideas may result in them ignoring health promotion. Additionally, avoiding assumptions and stereotypes about what any woman thinks is critical. As these results attest, different African-American women have different ideas; this study’s findings add to our understanding of the range of ideas held by these women.

This study has also contributed to the theoretical study of how risk perceptions are formed. It has demonstrated the work of culture in many of the
influences on risk perceptions that have been identified by other scholars, including illness representations, emotions, social networks, values, and personal experiences. It has investigated a "border" population and found that some members are like Douglas and Wildavsky's Americans: everything is risky. Other members, however, disagree. It has also demonstrated that religious ideas are an important influence on the formation of risk perceptions.

Finally, these findings contribute to our understanding of how ethnomedical knowledge is constructed. The study has provided ethnographic data demonstrating that the participants' bodies are both the objects and subjects of culture. Their ideas about the body are culturally constructed, and their embodied experiences are the basis of both the content of their knowledge about breast cancer risks and the process of knowledge creation. The ideas they have absorbed from the various cultures and subcultures they have encountered, as well as the political and economic contexts in which they live, have shaped what they have experienced. In turn, experiences of sights, sounds, smells, sensations, the sense of sureness, and stories are actively interpreted in learned ways, creating ideas about what is to be feared and where one stands in relation to these dangers, and what, if anything, is to be done.
1 By "knowledge," I mean the congeries of ideas about a topic held by any individual or group.

2 My use of quotation marks indicates that the meaning of the enclosed concept is particularly contested or ambiguous, or that the enclosed is a direct quotation from an author or informant. I will enclose contested and ambiguous concepts in quotation marks the first time they are used and omit quotation marks in subsequent occurrences. In the results section of the dissertation, I have not enclosed biomedical terms such as "genes," "cells," and "immune system" in quotes, though the meanings the study participants assign such terms are not necessarily the same as biomedical understandings.

3 "Emic" refers to variation that is context-dependent and meaningful to the informants themselves. "Etic" variation refers to differences in the data according to commonly accepted categories of difference imposed on the data such as age and education.

4 I use "knowledge," "perceptions," and "ideas" interchangeably and do not use "perceptions" in a psychological sense.

5 The Gail model was developed to gauge women's perceptions of risk from a number of factors, including

6 For example, when I explained my study to friends of both ethnic groups and prefaced it with mortality data about African-American women, both Euro-Americans and Blacks theorized that higher death rates were due to low socioeconomic status and the concomitant need to concentrate on basic survival, and poorer access to health care among Black women.

7 Only certain types of fibrocystic breast disease are risk factors for breast cancer.

8 For example, one three-hour documentary on WVIZ, a public television station, included educational and call-in segments and was hosted by Eleanor Hayes, a local Black newscaster.

9 Csordas' sample of 55 "Anglo-Americans" included ten African-Americans.

10 All names are pseudonyms.

11 I also did not include "breast lumps" as an item to be rated, but instead
discussed breast lumps during the course of the interviews. All of the women said that breast lumps (or knots) were not necessarily cancer, but that, when a lump is felt, breast cancer is a woman's first thought. I did not ask if having breast lumps increased a woman's risk of developing breast cancer; a few women, however, said that they were afraid that their breast lumps could "turn" to cancer.

12 From Section II, "Sensations" include gut feelings/intuition; listening to one's body; feeling good and comfortable; feeling uncomfortable; from within oneself; "ghost" feelings; first instincts, vibes, and premonitions.

13 "Objective" ways of knowing include past experience; "facts," articles, etc.; if it agrees with what you already know; others' body language; reading people; thinking; own values; common sense; and from elders.

14 "Divine" ways of knowing include higher power faith; Holy Spirit; prayer, God speaks to you; Jesus shows/tells; and reading the Bible.

15 Kleinman's framework is intended for use with specific illness episodes and thus includes a treatment element. I did not include ideas about treatment in these models, since my primary goal is not to elucidate models of specific episodes, and it was not germane to my research questions. But I did gather data on the informants' ideas about the effects of biomedical treatments and additional efforts that could affect the course of the disease. Additionally, I collected some brief information on the informants' understanding of the experience of others who had had breast or other cancer. I also included their ideas about another of Kleinman's elements, "Time and mode of onset of symptoms," in my discussion of etiology, since these ideas often included causal notions.

16 The informants' use of biological terminology does not mean that they understood these terms in generally accepted scientific ways.

17 I did not investigate the body size deemed to be "too heavy" in this sample of women.

18 No one mentioned the tabloid newspapers as a source of information, though it is clear from this statement that they are read.

19 Annette, ironically, would not tell me her exact age, though she was willing to reveal many other intimate details of her life. She said, "I always say 'Young enough and old enough.'"

20 Her opinion of Presbyterian behavior is contrary to that reported by Wilmore (in Baer and Singer 1992) who accused the Presbyterians of doing little about slavery.
"Major contributors" are defined as those items rated >= 3 on the 5-point scale or spontaneously mentioned in response to open-ended questions.

Mary told me that she did not take her prescribed blood pressure medicine, but that instead, she tried to "eat the right foods and don't have nothing bothering me." I urged her to take the medicine that was prescribed for her, and told her that dietary changes, while healthy, were apparently not enough to control her pressure. She promised to get a check-up (she had a regular doctor at the nearby clinic with whom she was pleased), but she did not promise to take her medication. I later called her to remind her to make an appointment for her check-up. I do not know if she kept the appointment.

The Marxist interpretation does not fully capture the meaning and significance of these women's religious experience, however, in that it neglects the joy and empowerment religious faith and involvement can bring (e.g., Lincoln and Mamiya 1990).

As noted above, all of the women in this study identified themselves as heterosexual.

There has been some work that suggests that African-American are less likely to subscribe to this conception of the ideal body. My informants did not support this finding.
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APPENDIX A

SEMI-STRUCTURED INTERVIEWS

AND

CONSENT FORM
III. Interview #1 – Background, Sources of Information, and Ways of Knowing

A. Residence history
   1. Where were you born? Was this in the country or city? When did you come to Cleveland?

B. Age
   1. How old are you?

C. Ethnic background
   1. What is your ethnic background as far back as you know?

D. Relationship history
   1. Are you married now?
   2. Have you ever been married?
      If yes, where and when were you married? (e.g., church, judge’s office, common-law)
   3. Have you ever been divorced?
   4. Have you ever been widowed?
   5. Did you remarry?
   6. a. Are you dating anyone "seriously" now?
      b. Are you living with someone?
      c. Are you engaged?
   7. a. If you are not seriously dating someone, are you dating anyone?
      b. Are you in a sexual relationship?

E. Religious history
1. Are you a member of any religious group now?  
   If yes, which group?
2. If not, do you consider yourself religious in any way?
3. How were you raised?
4. How often do you participate in religious activities now?

F. Education
1. Can you tell me about your education?

G. Work History
1. Can you tell me about the jobs you've had?

H. Reproductive history
1. a. Do you have any children?
   b. How many pregnancies have you had?
   c. Can you tell me about them?
2. Do you have any grandchildren?

I. 1. Are there any other children who you have mothered?

J. 1. a. Have you ever breastfed?
    If yes, how many times and for how long?
    b. Can you tell me about your experiences?

K. General health and well-being
1. How is your health now?
2. How has it been in the past?
3. a. How does your health compare to others you know?
   b. How does your ability to avoid diseases compare
to others you know?

c. How would you compare your family to others in terms of health?

1. Who are you like in your family?

7. Have you ever had what you consider to be a major loss?

8. If yes, did this loss affect your health?

9. Why do bad things happen to people?

L. 1. a. What do you think are the most serious health problems people in this area face?

b. Women in particular?

M. 1. Do you feel that there are any potential threats now to your health or general well-being?

N. Where do you get health information?

1. Television programs

2. Magazines

3. Newspapers

4. Radio

5. Books

6. Friends and family members

7. Computer networks

8. Religious sources

9. Doctors

10. Other health professionals

11. Other healers

O. 1. Which sources of health information do you trust most?
2. Whose advice do you really follow?

P. 1. What do you think you should do to stay healthy?
2. What do you do to stay healthy?
3. What gets in your way of doing what you think you should do to stay healthy?

Q. How do you know when something is true? Do women’s ways of knowing what is true differ from men’s? Are we born this way or do we learn it? Do you think African-American women’s ways of knowing differ from other women’s? If so, do you think this applies to all African-American women? Do you have gut feelings, intuitive knowledge, premonitions, dreams, signs, astrological knowledge?
II. Interview #2 – Explanatory Models of Cancer and Breast Cancer

A. Explanatory model of breast cancer - These questions will make you think but there are no right or wrong answers. I know you're not a doctor --I'd like to hear your thoughts, emotions, and feelings. So just talk.

1. Have you ever known anyone who has had breast cancer? Any other cancer?

2. Can you tell me about their experiences?
   a. Think about this person's disease. What sort of disease is it?
   b. Pretend you're writing a dictionary. Give me your dictionary definition of cancer? Breast cancer?

3. Why do you think this person got breast cancer/cancer?

4. a. Why do you think this person got breast cancer/cancer when s/he got it?
   b. Are you like this person in any way? Are you unlike this person? In terms of your bodies and health?

5. What do you think causes breast cancer in general?

6. Why do you think cancer might develop in a breast in particular rather than in some other place in the body?

7. Why do you think breast cancer begins at a particular time rather than at some other time?

8. How do you think breast cancer/cancer begins?

9. How do you think cancer works? What happens, what is the disease process?

10. Have you heard about cancer spreading? How do you think this happens?

11. What do you think breast cancer/cancer looks like?
12. Do you think that breast cancer is one disease or can it be many different diseases? If different diseases, how are they different?

13. What do you think are the symptoms of breast cancer?

14. What would make a woman think that a lump is cancer rather than something else?

15. Can cancer be cured?

16. What medical treatments do you know about for breast cancer?

17. If you or a loved one had breast cancer, what all would you want to be included in their care and treatment?

18. Do you think some people are more likely to get breast cancer than other people? If yes, why?

19. Do you put yourself in any of these categories? Why or why not?

B. Meaning of breasts and breast cancer

1. Can you talk about your experience of developing into a woman?

2. a. Why do women have breasts?

   b. Are they important in attracting and keeping a man? (or woman if homosexual) Why do men like them?

   c. Are they important in feeding babies?

3. What are all the names you know of for breasts? Why do we have so many?

4. Have you been happy with the size, shape, color, etc. of your body? Your breasts?

5. Have you ever had or considered breast implants, breast reduction, or a breast lift? How do you feel about these procedures and the women who have them?

6. What do you think the surgical removal of a breast would mean to you?
7. What do you think and feel when you hear the word, "breast." "Breast cancer?"

8. a. What have you been told about breast cancer by your family or friends, if anything?
   b. What, if anything, did you hear about cancer or breast cancer while you were growing up?

9. Are there any other names for breast cancer that you heard? Are there any other names for cancer that you have heard?

C. Breast cancer prevention

1. What, if anything, do you do to prevent breast cancer? Cancer in general?

2. Do you do breast self-exam. If yes, how often? Do you have your partner examine your breasts? Do you have a doctor examine your breasts? Have you ever had a mammogram? How often do you get one? Why did you have it? Did a doctor suggest it to you?

   If you do not do anything, why not?
III. Interview #3 - Risk Perception

A. Terminology

1. What does the term "risk factor" mean to you? If you hear about something being called a risk factor, what is your reaction? Do you think about whether it applies to you or if it's something you should pay attention to? How do you decide?

2. What does the term "at risk" mean to you? What does the term "high risk" mean to you?

3. Are you aware of any risk factors for breast cancer? Which ones that you named (if any) do you think are the most important?

4. Have you heard reports that say things like, "Women who live in Cuyahoga County are at higher risk of developing breast cancer than other women," or "More black women under the age of 40 get breast cancer than other women under the age of 40?" What are your reactions to reports like these? Do you believe them? How do you think they come to these conclusions?

B. Personal risk perception

1. Some women get breast cancer and most don't. What's your gut feeling about yourself and breast cancer? Do you think you will be one of the ones who don't get it or one of the ones who do?

C. Risk factors Please rate each item on a scale from 1 (Strongly disagree) to 5 (Strongly agree). First, rate the item according to the degree to which you think that experience with the item increases the risk of developing breast cancer in anyone, and then rate the item according to the degree to which you think that your experience with the item increases your risk of developing breast cancer.

1. Diet

2. Stress

2a. Family history

3. Hair dye (oil, perms, relaxers)

4. Alcohol use
5. Caffeine
6. Microwave ovens
7. Living near power lines
8. Female Hormones
9. Too much sunlight
10. Using tobacco products
11. Other people's smoke
12. Radiation
12a. X-rays
13. Mammograms
14. Tight clothes
15. Bumps or bruises
16. Punishment for sins
17. God's will
18. Luck
19. Appliances
20. Radon gas
21. Pesticides
22. Food additives
23. Biopsies
24. "Immoral" sexual activity
24a. "Abnormal" sexual activity
25. Too much playing with or sucking of the breasts during sexual activity (Informant)
25a. Rough playing with the breasts during sexual activity (Informant)
26. Chemicals at work or in the neighborhood
27. Chemicals in drinking water
28. Germs
29. Catching it from someone who has it
30. Lightning
31. Evil spirits
31a. The devil
32. Eating certain foods
33. Talking about cancer
34. Keeping your feelings "bottled up" (Informant)
35. Irradiated food
36. Curses, hexes, jinxes, working roots or mojos on somebody
37. Imbalance in the body
38. Substances added to food by a jealous or angry person
39. Breastfeeding
40. Negative thinking (Informant)
41. Weight
42. Lack of exercise
43. Being clogged up
44. Not having enough sex
45. Nor having enough faith in God (Can faith in God protect you from getting cancer or breast cancer?) (Informant)
46. Taking too many medicines
48. Having surgery
49. Not breastfeeding
50. A poor immune system
51. Chemicals in cleaning supplies
52. Poor nutrition while inside mother's womb (Informant)
53. Birth control pills
54. HRT
56. General poor health
57. Working too hard
58. Having big breasts
59. Having small breasts
60. Anything that "opens you up" or opens your pores to let harmful things come into your body
61. Never having had children
62. Having an abortion at some time in one's life
63. Having too many children
64. Having children too early
64a. Having children late
65. Having children too close together
66. Having your father or mother mess around with somebody else while your mother was carrying you (Informant)
67. Breast implants
68. STD's
69. Aging

C. Which of the things we've talked about do you feel are most important in deciding whether you feel that you are "at risk" of developing breast cancer or not?

D. Would you have any tests to see if you are or are not considered "high risk" for developing breast cancer?

F. Reactions to interviews
CONSENT FORM

I am a Ph.D. candidate in medical anthropology in the Department of Anthropology at Case Western Reserve University. I am conducting a study on Cleveland-area African-American women's thinking about breast cancer for my dissertation research. My hope is that the information obtained in this study will increase communication and understanding between women such as yourself and health professionals. Eventually such efforts will help to reduce the toll that this disease exacts.

I will interview you three times. Each interview will last approximately 1 to 2 hours, depending on how long we choose to talk. The interviews will occur at 2-week intervals. I will conduct interviews with you in your home or in any other place that is convenient and comfortable for you. The interview design allows you to talk freely, expand on what you say, and clarify and change your responses. There are no tests of any kind. All responses will be strictly confidential; no names or identifying characteristics will be attached to any written products resulting from the study. I will tape record the interviews and take notes, with your permission. I will do all transcribing. Your name will not appear on the tapes or questionnaires. I will keep both the tapes and the questionnaires when the study is concluded. I may use the material in journal articles, books, or in presentations to interested groups.

You may withdraw from the study at any time with no consequences. You may refuse to answer any question you do not wish to answer. You may request that certain portions of your interview not be used. You may read the dissertation manuscript when it is completed.

I, __________________, have read the above statement and agree to participate in this study under the conditions stated above.

Date
APPENDIX B

CHAPTER V

"I FEEL IT, I JUST KNOW WHAT IS TRUE:" SOURCES OF ETHNOMEDICAL INFORMATION

TABLES
<table>
<thead>
<tr>
<th>SOURCE</th>
<th>ALL (N=38)**</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=9)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=9)</th>
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<td>5 55.6</td>
<td>3 30.0</td>
<td>5 55.6</td>
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<td>3 33.3</td>
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<td>4 44.4</td>
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<td>Television/news/documentaries</td>
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<td>0 0.0</td>
<td>5 50.0</td>
<td>1 11.1</td>
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<td>3 33.3</td>
<td>3 30.0</td>
<td>2 22.2</td>
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<td>2 22.2</td>
<td>1 10.0</td>
<td>2 22.2</td>
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<td>2 20.0</td>
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<td>2 22.2</td>
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<tr>
<td>Friends</td>
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<td>1 10.0</td>
<td>2 22.2</td>
<td>1 10.0</td>
<td>2 22.2</td>
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<tr>
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<td>3 33.3</td>
<td>2 20.0</td>
<td>1 11.1</td>
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<td>&quot;Black&quot; magazines</td>
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<td>0 0.0</td>
<td>2 22.2</td>
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<td>Magazines targeted to women</td>
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<td>2 20.0</td>
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*Each informant may have given more than one answer.

**Two informants were not asked this question.
TABLE 5.1 cont.

SOURCES OF HEALTH INFORMATION*
NUMBER OF INFORMANTS NAMING EACH SOURCE
BY AGE AND EDUCATION GROUPS

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<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
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<td>&quot;Anywhere I can get it&quot;</td>
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<td>5.3</td>
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<td>0</td>
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<td>0.0</td>
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*Each informant may have given more than one answer.
** Two informants were not asked this question.
**TABLE 5.3**

TRUSTED SOURCES OF HEALTH INFORMATION*  
INFORMANTS NAMING EACH SOURCE  
BY AGE AND EDUCATION GROUPS

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<tr>
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<td>18</td>
<td>50.0</td>
<td>3</td>
<td>30.0</td>
<td>6</td>
</tr>
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<td>Doctor, with qualifications</td>
<td>7</td>
<td>19.4</td>
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<td>40.0</td>
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<td>Mother</td>
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<td>16.7</td>
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<td>30.0</td>
<td>0</td>
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<td>Research</td>
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<td>11.1</td>
<td>1</td>
<td>10.0</td>
<td>3</td>
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<td>God</td>
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<td>11.1</td>
<td>0</td>
<td>0.0</td>
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<td>Information found by oneself</td>
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* Each informant may have given more than one answer.  
** Four informants were not asked this question.
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<th>SOURCE</th>
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<th>NON-COLLEGE &gt;=50 (N=9)</th>
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<td>Get several opinions, then decide for oneself</td>
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<td>1 10.0</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Bible</td>
<td>2 5.6</td>
<td>0 0.0</td>
<td>1 14.3</td>
<td>1 10.0</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Holy Spirit</td>
<td>2 5.6</td>
<td>0 0.0</td>
<td>0 0.0</td>
<td>1 10.0</td>
<td>1 11.1</td>
</tr>
<tr>
<td>Friends</td>
<td>1 2.8</td>
<td>0 0.0</td>
<td>0 0.0</td>
<td>1 10.0</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Depends on person, situation</td>
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<td>1 11.1</td>
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<td>Other health professionals</td>
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* Each informant may have given more than one answer.
** Four informants were not asked this question.
TABLE 5.5
WAYS OF KNOWING IF SOMETHING IS TRUE*
INFORMANTS NAMING EACH SOURCE
BY AGE AND EDUCATION GROUPS

<table>
<thead>
<tr>
<th>WAY OF KNOWING</th>
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<th>COLLEGE &gt;=50 (N=7)</th>
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<th>NON-COLLEGE &gt;=50 (N=10)</th>
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</thead>
<tbody>
<tr>
<td>Gut feeling/intuition</td>
<td>16 (47.1%)</td>
<td>5 (62.5%)</td>
<td>3 (42.9%)</td>
<td>7 (77.8%)</td>
<td>1 (10.0%)</td>
</tr>
<tr>
<td>Feel good, comfortable</td>
<td>6 (17.6%)</td>
<td>2 (25.0%)</td>
<td>3 (42.9%)</td>
<td>1 (11.1%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>By &quot;reading&quot; people</td>
<td>6 (17.6%)</td>
<td>2 (25.0%)</td>
<td>3 (42.9%)</td>
<td>1 (11.1%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Uncomfortable feeling</td>
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<td>1 (12.5%)</td>
<td>0 (0.0%)</td>
<td>4 (44.4%)</td>
<td>0 (0.0%)</td>
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<tr>
<td>Dreams</td>
<td>5 (14.7%)</td>
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<td>0 (0.0%)</td>
<td>3 (33.3%)</td>
<td>2 (20.0%)</td>
</tr>
<tr>
<td>Premonitions</td>
<td>5 (14.7%)</td>
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<td>0 (0.0%)</td>
<td>1 (10.0%)</td>
</tr>
<tr>
<td>Past experience</td>
<td>4 (11.8%)</td>
<td>0 (0.0%)</td>
<td>1 (14.3%)</td>
<td>1 (11.1%)</td>
<td>2 (20.0%)</td>
</tr>
<tr>
<td>From higher power</td>
<td>4 (11.8%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>1 (11.1%)</td>
<td>3 (30.0%)</td>
</tr>
<tr>
<td>If it agrees with what you already know</td>
<td>4 (11.8%)</td>
<td>1 (12.5%)</td>
<td>0 (0.0%)</td>
<td>2 (22.2%)</td>
<td>1 (10.0%)</td>
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</tbody>
</table>

* Each informant may have given more than one answer.
** Six informants were not asked this question.
TABLE 5.5 cont.
WAYS OF KNOWING IF SOMETHING IS TRUE*
INFORMANTS NAMING EACH SOURCE
BY AGE AND EDUCATION GROUPS

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<tr>
<th>WAY OF KNOWING</th>
<th>ALL (N=34)**</th>
<th>COLLEGE &lt;50 (N=8)</th>
<th>COLLEGE &gt;=50 (N=7)</th>
<th>NON-COLLEGE &lt;50 (N=9)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Facts, articles, etc.</td>
<td>4</td>
<td>11.8</td>
<td>1</td>
<td>12.5</td>
<td>2</td>
</tr>
<tr>
<td>Holy Spirit</td>
<td>3</td>
<td>8.8</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>Prayer</td>
<td>3</td>
<td>8.8</td>
<td>1</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>From within yourself</td>
<td>3</td>
<td>8.8</td>
<td>1</td>
<td>12.5</td>
<td>1</td>
</tr>
<tr>
<td>Listen to your body</td>
<td>2</td>
<td>5.9</td>
<td>1</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>First instinct</td>
<td>2</td>
<td>5.9</td>
<td>1</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>Thinking</td>
<td>2</td>
<td>5.9</td>
<td>1</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>From elders</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Signs</td>
<td>1</td>
<td>2.9</td>
<td>1</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>Faith</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>God speaks to you</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Things happen to make you know</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Jesus shows/tells</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
</tbody>
</table>

* Each informant may have given more than one answer.
** Six informants were not asked this question.
## TABLE 5.5 cont.

WAYS OF KNOWING IF SOMETHING IS TRUE*
INFORMANTS NAMING EACH SOURCE
BY AGE AND EDUCATION GROUPS

<table>
<thead>
<tr>
<th>WAY OF KNOWING</th>
<th>ALL (N=34)**</th>
<th>COLLEGE &lt;50 (N=8)</th>
<th>COLLEGE &gt;=50 (N=7)</th>
<th>NON-COLLEGE &lt;50 (N=9)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Bible</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>&quot;Ghost&quot; feelings</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Other's body language</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Own values/own sense of self</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Vibes</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Common sense</td>
<td>1</td>
<td>2.9</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
</tbody>
</table>

* Each informant may have given more than one answer.
** Six informants were not asked this question.
<table>
<thead>
<tr>
<th>Category</th>
<th>Risky Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body</strong></td>
<td></td>
</tr>
<tr>
<td>Family history</td>
<td>Poor immune system</td>
</tr>
<tr>
<td>Aging</td>
<td>Imbalance in the body</td>
</tr>
<tr>
<td><strong>Germs</strong></td>
<td>Germs</td>
</tr>
<tr>
<td>Reproduction</td>
<td>Having children too young</td>
</tr>
<tr>
<td></td>
<td>Having children too close together</td>
</tr>
<tr>
<td></td>
<td>Not breast-feeding</td>
</tr>
<tr>
<td></td>
<td>Having many children</td>
</tr>
<tr>
<td></td>
<td>Having no children</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Pesticides</td>
</tr>
<tr>
<td></td>
<td>Food additives</td>
</tr>
<tr>
<td></td>
<td>Chemicals in the environment</td>
</tr>
<tr>
<td></td>
<td>Chemicals in the water</td>
</tr>
<tr>
<td></td>
<td>Medications</td>
</tr>
<tr>
<td>Energy Forces</td>
<td>Electrical power lines/EMF fields</td>
</tr>
<tr>
<td></td>
<td>Microwave ovens</td>
</tr>
<tr>
<td></td>
<td>Mammograms</td>
</tr>
<tr>
<td>Injury</td>
<td>Injuries to the breast</td>
</tr>
<tr>
<td></td>
<td>Tight clothes</td>
</tr>
<tr>
<td>Sex</td>
<td>Rough handling of the breasts during sexual activity</td>
</tr>
<tr>
<td></td>
<td>Playing with breasts during sex</td>
</tr>
<tr>
<td>Stress</td>
<td>Emotional stress</td>
</tr>
<tr>
<td></td>
<td>Working too hard</td>
</tr>
<tr>
<td></td>
<td>Bottling up feelings</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>General diet</td>
</tr>
<tr>
<td></td>
<td>Certain foods</td>
</tr>
<tr>
<td></td>
<td>Tobacco products</td>
</tr>
<tr>
<td></td>
<td>Alcohol</td>
</tr>
<tr>
<td></td>
<td>Secondhand smoke</td>
</tr>
<tr>
<td>Spiritual</td>
<td>God's will</td>
</tr>
<tr>
<td></td>
<td>Punishment from God</td>
</tr>
<tr>
<td></td>
<td>Luck</td>
</tr>
<tr>
<td>Social</td>
<td>Talking about cancer</td>
</tr>
<tr>
<td></td>
<td>Contagion</td>
</tr>
</tbody>
</table>
TABLE 6.2
FACTOR ANALYSIS OF ITEM RATINGS

<table>
<thead>
<tr>
<th>FACTOR ITEM</th>
<th>INJURY</th>
<th>UNNATURAL</th>
<th>DEVIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rough handling of the breasts</td>
<td>Abnormal Sex</td>
<td>Injury to the Breast</td>
</tr>
<tr>
<td>FACTOR LOADING</td>
<td>.84748</td>
<td>.74789</td>
<td>.7356</td>
</tr>
<tr>
<td>EIGENVALUE</td>
<td>.51397</td>
<td>.60529</td>
<td>1.3756</td>
</tr>
<tr>
<td>PERCENT OF VARIANCE EXPLAINED</td>
<td>.7</td>
<td>.8</td>
<td>1.8</td>
</tr>
</tbody>
</table>

TABLE 6.2 cont.
FACTOR ANALYSIS OF ITEM RATINGS

<table>
<thead>
<tr>
<th>FACTOR ITEM</th>
<th>BURDEN</th>
<th>SOCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lack of Exercise</td>
<td>Weight</td>
</tr>
<tr>
<td>FACTOR LOADING</td>
<td>.72238</td>
<td>.70904</td>
</tr>
<tr>
<td>EIGENVALUE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PERCENT OF VARIANCE EXPLAINED</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
TABLE 6.6
MEAN RATINGS* AND STANDARD DEVIATIONS** FOR EACH MODEL GROUP AND ITEM CATEGORY
COMPARISONS TO SAMPLE AS A WHOLE

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Mean Ratings and Std. Dev.</th>
<th>Body</th>
<th>Injury</th>
<th>Germs</th>
<th>Sex</th>
<th>Reproduction</th>
<th>Energy Forces</th>
<th>Synthetic Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (N=40)</td>
<td>Mean Rating</td>
<td>2.94</td>
<td>2.31</td>
<td>2.75</td>
<td>2.09</td>
<td>1.98</td>
<td>2.68</td>
<td>3.45</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.74</td>
<td>1.19</td>
<td>1.55</td>
<td>.93</td>
<td>.95</td>
<td>.84</td>
<td>.81</td>
</tr>
<tr>
<td>Folk (N=11)</td>
<td>Mean Rating</td>
<td>3.35</td>
<td>3.32</td>
<td>3.73</td>
<td></td>
<td></td>
<td>2.88</td>
<td>3.78</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.82</td>
<td>.98</td>
<td>1.27</td>
<td>.53</td>
<td>.83</td>
<td>.76</td>
<td>.72</td>
</tr>
<tr>
<td>Educated Folk (N=4)</td>
<td>Mean Rating</td>
<td>3.08</td>
<td>2.75</td>
<td>3.25</td>
<td>1.63</td>
<td>1.30</td>
<td>2.83</td>
<td>3.30</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.52</td>
<td>.29</td>
<td>.50</td>
<td>.47</td>
<td>.40</td>
<td>.24</td>
<td>.53</td>
</tr>
<tr>
<td>Buppie (N=7)</td>
<td>Mean Rating</td>
<td>2.66</td>
<td>1.21</td>
<td></td>
<td>1.30</td>
<td>1.28</td>
<td>2.67</td>
<td>3.14</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.61</td>
<td>.39</td>
<td>.00</td>
<td>.23</td>
<td>.23</td>
<td>.25</td>
<td>.75</td>
</tr>
</tbody>
</table>

* Shaded figures represent average ratings of items in each category for each group that differ from the average ratings for the items in each category of the sample as a whole by + or - one standard deviation.

** Bolded figures represent group standard deviations that are less than the standard deviations for the sample as a whole.
### TABLE 6.6 cont.

**MEAN RATINGS* AND STANDARD DEVIATIONS** FOR EACH MODEL GROUP AND ITEM CATEGORY
**COMPARISONS TO SAMPLE AS A WHOLE**

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Mean Ratings and Std. Dev.</th>
<th>Categories of Items Risky for Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Rating</td>
<td>Body</td>
</tr>
<tr>
<td>Nothing Causes It (N=11)</td>
<td>Mean Rating</td>
<td>2.35</td>
</tr>
<tr>
<td>StdDev</td>
<td>.53</td>
<td>.71</td>
</tr>
<tr>
<td>Anything is Possible (N=5)</td>
<td>Mean Rating</td>
<td>3.46</td>
</tr>
<tr>
<td>StdDev</td>
<td>.38</td>
<td>1.44</td>
</tr>
<tr>
<td>God Put It There (N=2)</td>
<td>Mean Rating</td>
<td>3.40</td>
</tr>
<tr>
<td>StdDev</td>
<td>.42</td>
<td>1.06</td>
</tr>
</tbody>
</table>

* Shaded figures represent group mean ratings that differ from the mean ratings of the sample as a whole by ± one standard deviation.

** Bolded figures represent group standard deviations that are less than the standard deviations for the sample as a whole.
### TABLE 6.6 cont.

**MEAN RATINGS* AND STANDARD DEVIATIONS** for each model group and item category comparisons to sample as a whole

**CATEGORIES OF ITEMS RISKY FOR CANCER**

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Mean Ratings and Std. Dev.</th>
<th>Lifestyle</th>
<th>Stress</th>
<th>Biomedical</th>
<th>Positive/Neutral Spiritual</th>
<th>Negative Spiritual</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (N=40)</td>
<td>Mean</td>
<td>3.16</td>
<td>2.85</td>
<td>2.98</td>
<td>2.03</td>
<td>1.78</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.73</td>
<td>.91</td>
<td>.82</td>
<td>.98</td>
<td>1.19</td>
<td>.66</td>
</tr>
<tr>
<td>Folk (N=11)</td>
<td>Mean</td>
<td>3.35</td>
<td>2.91</td>
<td>3.59</td>
<td>1.36</td>
<td>2.03</td>
<td>1.32</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.72</td>
<td>.74</td>
<td>.42</td>
<td>.43</td>
<td>1.18</td>
<td>.60</td>
</tr>
<tr>
<td>Educated Folk (N=4)</td>
<td>Mean</td>
<td>3.36</td>
<td>3.13</td>
<td>2.53</td>
<td>1.08</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.70</td>
<td>.66</td>
<td>.69</td>
<td>.17</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Buppie (N=7)</td>
<td>Mean</td>
<td>3.20</td>
<td>2.75</td>
<td>2.32</td>
<td>1.43</td>
<td>1.43</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.61</td>
<td>.74</td>
<td>.39</td>
<td>.46</td>
<td>.79</td>
<td>.00</td>
</tr>
</tbody>
</table>

* Shaded figures represent group mean ratings that differ from the mean ratings of the sample as a whole by + or - one standard deviation

** Bolded figures represent group standard deviations that are less than the standard deviations for the sample as a whole
### TABLE 6.6 cont.

**MEAN RATINGS* AND STANDARD DEVIATIONS** for each model group and item category comparisons to sample as a whole

<table>
<thead>
<tr>
<th>Model Group</th>
<th>Categories of Items Risky for Cancer</th>
<th>Mean Ratings and Std. Dev.</th>
<th>Lifestyle</th>
<th>Stress</th>
<th>Biomedical</th>
<th>Positive/Neutral Spiritual</th>
<th>Negative Spiritual</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing Causes It (N=11)</td>
<td></td>
<td>Mean</td>
<td>2.59</td>
<td>2.42</td>
<td>2.85</td>
<td>1.24</td>
<td>1.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.56</td>
<td>1.10</td>
<td>.48</td>
<td>.70</td>
<td>.42</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>Anything Is Possible (N=5)</td>
<td></td>
<td>Mean</td>
<td>3.75</td>
<td>3.51</td>
<td>2.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.53</td>
<td>.35</td>
<td>.65</td>
<td>1.04</td>
<td>1.30</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>God Put It There (N=2)</td>
<td></td>
<td>Mean</td>
<td>3.14</td>
<td>1.50</td>
<td>3.00</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>StdDev</td>
<td>.61</td>
<td>.71</td>
<td>.44</td>
<td>.94</td>
<td>.00</td>
<td>.00</td>
<td></td>
</tr>
</tbody>
</table>

* Shaded figures represent group mean ratings that differ from the mean ratings of the sample as a whole by + or - one standard deviation

** Bolded figures represent group standard deviations that are less than the standard deviations for the sample as a whole
### TABLE 7.3

CHARACTERISTICS OR CONDITIONS OF THE BODY ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO OTHERS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=40)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median* Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Family History</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Poor Immune System</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Maternal Nutrition</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Imbalance in the Body</td>
<td>1.5</td>
<td>1.0</td>
<td>2.5</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Clogged-up Body</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Poor Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Hormones</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Weight</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Big Breasts</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Aging</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* Median ratings >= 3.0 are shaded
# TABLE 7.4

**CHARACTERISTICS OR CONDITIONS OF THE BODY ITEMS BY AGE AND EDUCATION GROUPS**  
**RISKS TO SELF**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=40)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Family History</td>
<td>2.0</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Poor Immune System</td>
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<td>Maternal Nutrition</td>
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<td>Imbalance in the Body</td>
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<td>Clogged-up Body</td>
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<td>1.0</td>
<td>1.0</td>
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<td>Weight</td>
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<td>1.0</td>
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<td>Big Breasts</td>
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* Median ratings >= 3.0 are shaded
TABLE 7.5
INJURIES AND GERMS AND INFECTIONS ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO OTHERS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL N=40</th>
<th>COLLEGE &lt;50 N=10</th>
<th>COLLEGE &gt;=50 N=10</th>
<th>NON-COLLEGE &lt;50 N=10</th>
<th>NON-COLLEGE &gt;=50 N=10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median* Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tight Clothes</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Bumps and Bruises</td>
<td>2.0</td>
<td>2.0</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Germs</td>
<td>1.0</td>
<td></td>
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</tr>
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</table>

* Median ratings >= 3.0 are shaded.
TABLE 7.6  
INJURIES AND GERMS AND INFECTIONS ITEMS  
BY AGE AND EDUCATION GROUPS  
RISKS TO SELF  

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Tight Clothes</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Bumps and Bruises</td>
<td>1.0</td>
<td>1.0</td>
<td>1.5</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Germs</td>
<td>2.0</td>
<td>1.0</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
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* Median ratings >= 3.0 are shaded.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Immoral Sex</td>
<td>2.0</td>
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<td>2.5</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Abnormal Sex</td>
<td>1.5</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Playing with Breasts</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Rough Sex</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Parents Messed Around</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Not Enough Sex</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>STD's</td>
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*Median ratings >= 3.0 are shaded.*
### TABLE 7.8

**SEX ITEMS**  
**BY AGE AND EDUCATION GROUPS**  
**RISKS TO SELF**

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<th>ITEM</th>
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<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Median Rating</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Abnormal Sex</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Playing with Breasts</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Rough Sex</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Parents Messed Around</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Not enough sex</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>STD's</td>
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<td>1.0</td>
<td>1.0</td>
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</tbody>
</table>
TABLE 7.9

REPRODUCTION ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO OTHERS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Breastfeeding</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
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<td>1.0</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>No Children</td>
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<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Too Many Children</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Children Too Early</td>
<td>2.0</td>
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<td>2.0</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Children Too Late</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Children Too Close</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.5</td>
<td></td>
</tr>
</tbody>
</table>

* Median ratings >= 3.0 are shaded.
### TABLE 7.10

**REPRODUCTION ITEMS BY AGE AND EDUCATION GROUPS**

**RISKS TO SELF**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Breastfeeding</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Not Breastfeeding</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>No Children</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Too Many Children</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Children Too Early</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Children Too Late</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Children Too Close</td>
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*Median ratings >= 3.0 are shaded.*
# TABLE 7.11

NATURAL ENERGY FORCES ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO OTHERS

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<tr>
<th>ITEM</th>
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<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Sunlight</td>
<td>3.0</td>
<td>3.0</td>
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</tr>
<tr>
<td>Radiation</td>
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<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Microwaves</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Power Lines</td>
<td>2.5</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Appliances</td>
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<td>2.5</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Lightning</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
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</table>

* Median ratings >= 3.0 are shaded.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
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<tr>
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<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Sunlight</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Radiation</td>
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<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Microwaves</td>
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<td>2.5</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Power Lines</td>
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<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Appliances</td>
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<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Lightning</td>
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<td>1.0</td>
<td>1.0</td>
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</table>

* Median ratings >= 3.0 are shaded.
### TABLE 7.13

**SYNTHETIC CHEMICALS ITEMS**  
**BY AGE AND EDUCATION GROUPS**  
**RISKS TO OTHERS**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hair Products</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.5</td>
<td>Median Rating 1.0</td>
<td>Median Rating 1.5</td>
</tr>
<tr>
<td>Pesticides</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.5</td>
<td>Median Rating 1.0</td>
<td>Median Rating 1.5</td>
</tr>
<tr>
<td>Food Additives</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.5</td>
<td>Median Rating 1.0</td>
<td>Median Rating 1.5</td>
</tr>
<tr>
<td>Chemicals in Environment</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.5</td>
<td>Median Rating 1.0</td>
<td>Median Rating 1.5</td>
</tr>
<tr>
<td>Chemicals in Water</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.5</td>
<td>Median Rating 1.0</td>
<td>Median Rating 1.5</td>
</tr>
<tr>
<td>Cleaning Chemicals</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.0</td>
<td>Median Rating 2.5</td>
<td>Median Rating 1.0</td>
<td>Median Rating 1.5</td>
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</tbody>
</table>

* Median ratings >= 3.0 are shaded.
TABLE 7.14
SYNTHETIC CHEMICALS ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO SELF

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Hair Products</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Pesticides</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Additives</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals in Environment</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals in Water</td>
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</tr>
<tr>
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* Median ratings >= 3.0 are shaded.
### TABLE 7.15

**LIFESTYLE ITEMS**  
**BY AGE AND EDUCATION GROUPS**  
**RISKS TO OTHERS**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Diet</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caffeine</td>
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<td></td>
<td></td>
<td></td>
<td>1.5</td>
</tr>
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<td>Tobacco Products</td>
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<td></td>
</tr>
<tr>
<td>Secondhand Smoke</td>
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<td></td>
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<td>2.5</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Lack of Exercise</td>
<td>2.5</td>
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</table>

* Mean ratings >= 3.0 are shaded.
### TABLE 7.16

LIFESTYLE ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO SELF

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>COLLEGE &lt;50</th>
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<th>NON-COLLEGE &lt;50</th>
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</thead>
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<td></td>
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<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
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<td>2.0</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Caffeine</td>
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<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Tobacco Products</td>
<td>1.0</td>
<td>1.0</td>
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<td>1.5</td>
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<td>Secondhand Smoke</td>
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<td>0.0</td>
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<td>1.5</td>
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<td>2.0</td>
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</table>

* Median ratings >= 3.0 are shaded.
TABLE 7.17
STRESS ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO OTHERS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
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</thead>
<tbody>
<tr>
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<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Stress Bottling-up Feelings</td>
<td></td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Thinking</td>
<td>1.0</td>
<td>2.5</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Not Enough Faith</td>
<td>1.5</td>
<td>2.0</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Working Too Hard</td>
<td>2.5</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
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* Median ratings >= 3.0 are shaded.
TABLE 7.18
STRESS ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO SELF

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
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<td>Median Rating</td>
<td>Median Rating</td>
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<tr>
<td>Stress</td>
<td>2.0 2.5 2.5 2.0 2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottling-up Feelings</td>
<td>2.0 2.0 2.0 2.0 1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Thinking</td>
<td>1.0 1.5 1.0 1.0 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Enough Faith</td>
<td>1.0 1.0 1.0 1.0 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working Too Hard</td>
<td>1.0 2.0 1.0 2.0 1.0</td>
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*Median ratings >= 3.0 are shaded.*
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<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
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<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>X-Rays</td>
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<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Mammograms</td>
<td>2.0</td>
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<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
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<td>Birth Control Pills</td>
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<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>HRT</td>
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<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
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</tr>
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<td>Breast Implants</td>
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<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
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<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Surgery</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Biopsies</td>
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<tr>
<td>Abortions</td>
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</table>

* Median ratings >= 3.0 are shaded.*
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
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<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>X-Rays</td>
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<td>2.0</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
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<td>1.5</td>
<td>1.0</td>
<td>3.0</td>
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<td>2.5</td>
<td>1.0</td>
</tr>
<tr>
<td>HRT</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Breast Implants</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
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<td>1.5</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
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<td>Abortions</td>
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<td>1.0</td>
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TABLE 7.21
SPIRITUAL ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO OTHERS

<table>
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<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Punishment from God</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>God's Will</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Luck</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Devil</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Working Roots</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.5</td>
</tr>
</tbody>
</table>

* Median ratings >= 3.0 are shaded.
TABLE 7.22

SPIRITUAL ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO SELF

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Punishment from</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>God</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>God's Will</td>
<td>3.0*</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Luck</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Devil</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Working Roots</td>
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<td>1.0</td>
<td>1.0</td>
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</table>

* Median ratings >= 3.0 are shaded.
### TABLE 7.23

**SOCIAL ITEMS**
**BY AGE AND EDUCATION GROUPS**
**RISKS TO OTHERS**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ALL (N=10)</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Talking about Cancer</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Contagion</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* Median ratings >= 3.0 are shaded.
TABLE 7.24
SOCIAL ITEMS
BY AGE AND EDUCATION GROUPS
RISKS TO SELF

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
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</thead>
<tbody>
<tr>
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<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
<td>Median Rating</td>
</tr>
<tr>
<td>Talking about Cancer</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Contagion</td>
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<td>1.0</td>
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* Median ratings >= 3.0 are shaded.
### TABLE 7.25

**PERCEIVED RISK STATUS BY AGE AND EDUCATION GROUPS AND GENERAL MODEL**

<table>
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<tr>
<th>Perceived Risk Status</th>
<th>COLLEGE &lt;50 (N=10)</th>
<th>COLLEGE &gt;=50 (N=10)</th>
<th>NON-COLLEGE &lt;50 (N=10)</th>
<th>NON-COLLEGE &gt;=50 (N=10)</th>
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</thead>
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<td>Divine</td>
<td>Worldly</td>
<td>Divine</td>
</tr>
<tr>
<td>At Risk</td>
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<td>0</td>
</tr>
<tr>
<td>Not at Risk</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>2</td>
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<tr>
<td>Ambivalent</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
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APPENDIX E
INFORMANTS' CHARACTERISTICS
TABLES
TABLE 8.1
GROUP ONE - THE FOLK GROUP
INFORMANTS' CHARACTERISTICS

<table>
<thead>
<tr>
<th>Name*</th>
<th>Age Group</th>
<th>Education</th>
<th>Raised in North or South. U.S.</th>
<th>Religious Affiliation***</th>
<th>Ethnicity***</th>
<th>Marital Status</th>
<th>Perceived Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonia</td>
<td>48</td>
<td>Coll.</td>
<td>North</td>
<td>UCC</td>
<td>AfAm Euro NatAm</td>
<td>Mar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Vernita</td>
<td>72</td>
<td>Coll.</td>
<td>North</td>
<td>A.M.E.</td>
<td>AfAm NatAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Winnie</td>
<td>54</td>
<td>Coll.</td>
<td>South</td>
<td>U.C.C.</td>
<td>AfAm Euro</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Thelma</td>
<td>82</td>
<td>Coll.</td>
<td>North</td>
<td>Methodist</td>
<td>AfAm Euro NatAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Veronica</td>
<td>64</td>
<td>Non-Coll.</td>
<td>South</td>
<td>Methodist</td>
<td>AfAm NatAm</td>
<td>Wid</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Verlene</td>
<td>57</td>
<td>Coll.</td>
<td>North</td>
<td>7th Day Adventist</td>
<td>AfAm Euro NatAm</td>
<td>NevMar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Rondelle</td>
<td>55</td>
<td>Non-Coll.</td>
<td>South</td>
<td>Baptist</td>
<td>AfAm</td>
<td>Mar</td>
<td>Ambivalent</td>
</tr>
<tr>
<td>Margaret</td>
<td>72</td>
<td>Non-Coll.</td>
<td>South</td>
<td>Baptist</td>
<td>AfAm Euro NatAm</td>
<td>Wid&amp;Sep</td>
<td>At Risk</td>
</tr>
</tbody>
</table>

*All names are pseudonyms.
**Pres. – Presbyterian; Jeh. Wit. – Jehovah’s Witness; UCC – United Church of Christ; A.M.E. – African Methodist Episcopal
***AfAm – African American; Euro – European-American; NatAm – Native American
****Annette would not give a specific age.
**TABLE 9.1**

GROUP TWO – THE EDUCATED FOLK GROUP INFORMANTS' CHARACTERISTICS

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
<th>Raised in North. or South. U.S.</th>
<th>Religious Affiliation**</th>
<th>Ethnicity***</th>
<th>Marital Status</th>
<th>Perceived Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gina</td>
<td>23</td>
<td>Non-Coll.</td>
<td>North</td>
<td>None</td>
<td>Other</td>
<td>NevMar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Sally</td>
<td>56</td>
<td>Coll.</td>
<td>South</td>
<td>Methodist</td>
<td>AfAm</td>
<td>Div&amp;Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Gayle</td>
<td>62</td>
<td>Coll.</td>
<td>North</td>
<td>UCC</td>
<td>AfAm Euro NatAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
</tbody>
</table>

*Names are pseudonyms.
**A.M.E. – African Methodist Episcopal; UCC – United Church of Christ;
***AfAm – African American; Euro – European-American; NatAm – Native American
<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
<th>Raised In North. or South. U.S.</th>
<th>Religious Affiliation**</th>
<th>Ethnicity***</th>
<th>Marital Status</th>
<th>Perceived Risk Status</th>
</tr>
</thead>
<tbody>
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<td>Baptist</td>
<td>AfAm NatAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>46</td>
<td>Coll.</td>
<td>North</td>
<td>Unitarian</td>
<td>AfAm NatAm</td>
<td>NevMar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Hallie</td>
<td>37</td>
<td>Coll.</td>
<td>GrBr, North</td>
<td>7th Day Adventist</td>
<td>AfAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Lee</td>
<td>34</td>
<td>Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm Euro NatAm</td>
<td>Div</td>
<td>Ambivalent</td>
</tr>
<tr>
<td>Sharon</td>
<td>26</td>
<td>Coll.</td>
<td>North</td>
<td>None</td>
<td>AfAm NatAm</td>
<td>NevMar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Vicki</td>
<td>36</td>
<td>Coll.</td>
<td>North</td>
<td>UCC</td>
<td>AfAm</td>
<td>Mar</td>
<td>Ambivalent</td>
</tr>
<tr>
<td>Marva</td>
<td>63</td>
<td>Coll.</td>
<td>South</td>
<td>Methodist</td>
<td>AfAm Euro NatAm</td>
<td>Div</td>
<td>Not at Risk</td>
</tr>
</tbody>
</table>

*Names are pseudonyms.
**UCC – United Church of Christ
***AfAm – African American; Euro – European-American; NatAm – Native American
TABLE 12.1
GROUP FOUR - THE NOTHING CAUSES IT GROUP
INFORMANTS’ CHARACTERISTICS

<table>
<thead>
<tr>
<th>Name*</th>
<th>Age</th>
<th>Education</th>
<th>Raised in North. or South. U.S.</th>
<th>Religious Affiliation***</th>
<th>Ethnicity</th>
<th>Marital Status</th>
<th>Perceived Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirley</td>
<td>46</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Muslim</td>
<td>AfAm NatAm</td>
<td>Div</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Paula</td>
<td>42</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm NatAm</td>
<td>Div</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Alicia</td>
<td>56</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm Euro</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Janelle</td>
<td>48</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm Euro</td>
<td>NevMar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Lydia</td>
<td>47</td>
<td>Coll.</td>
<td>North</td>
<td>UCC</td>
<td>AfAm NatAm</td>
<td>Div</td>
<td>At Risk</td>
</tr>
<tr>
<td>Loretta</td>
<td>57</td>
<td>Coll.</td>
<td>South</td>
<td>Methodist</td>
<td>AfAm</td>
<td>Wid</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Phyllis</td>
<td>45</td>
<td>Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Ronette</td>
<td>36</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Muslim</td>
<td>AfAm Euro NatAm</td>
<td>Mar</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>Bonnie</td>
<td>54</td>
<td>Non-Coll.</td>
<td>South</td>
<td>Baptist</td>
<td>AfAm</td>
<td>Mar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Connie</td>
<td>54</td>
<td>Coll.</td>
<td>South</td>
<td>UCC</td>
<td>AfAm</td>
<td>Sep</td>
<td>Not at Risk</td>
</tr>
<tr>
<td>June</td>
<td>44</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Catholic</td>
<td>AfAm Euro NatAm</td>
<td>Div</td>
<td>At Risk</td>
</tr>
</tbody>
</table>

*Names are pseudonyms.
** UCC – United Church of Christ
***AfAm – African American; Euro – European-American; NatAm – Native American
TABLE 13.1
GROUP FIVE – THE ANYTHING IS POSSIBLE GROUP
INFORMANTS' CHARACTERISTICS

<table>
<thead>
<tr>
<th>Name*</th>
<th>Age</th>
<th>Education</th>
<th>Raised in North, or South, U.S.</th>
<th>Religious Affiliation</th>
<th>Ethnicity**</th>
<th>Marital Status</th>
<th>Perceived Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbara</td>
<td>32</td>
<td>Non-Coll.</td>
<td>North</td>
<td>None</td>
<td>AfAm NatAm</td>
<td>NevMar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Estelle</td>
<td>36</td>
<td>Non-Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm Euro NatAm</td>
<td>Div</td>
<td>At Risk</td>
</tr>
<tr>
<td>Nora</td>
<td>42</td>
<td>Coll.</td>
<td>North</td>
<td>Baptist</td>
<td>AfAm NatAm</td>
<td>Mar</td>
<td>At Risk</td>
</tr>
<tr>
<td>Rhonda</td>
<td>40</td>
<td>Non-Coll.</td>
<td>North</td>
<td>None</td>
<td>AfAm NatAm</td>
<td>Div</td>
<td>At Risk</td>
</tr>
<tr>
<td>Phoebe</td>
<td>55</td>
<td>Non-Coll.</td>
<td>North</td>
<td>None</td>
<td>AfAm Euro NatAm</td>
<td>Div&amp;Wid</td>
<td>At Risk</td>
</tr>
</tbody>
</table>

*Names are pseudonyms.

**AfAm – African American; Euro – European-American; NatAm – Native American
### TABLE 14.1

GROUP SIX – THE GOD PUT IT THERE GROUP
INFORMANTS' CHARACTERISTICS

<table>
<thead>
<tr>
<th>Name*</th>
<th>Age</th>
<th>Education</th>
<th>Raised in North. or South. U.S.</th>
<th>Religious Affiliation</th>
<th>Ethnicity**</th>
<th>Marital Status</th>
<th>Perceived Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary</td>
<td>55</td>
<td>Non-Coll</td>
<td>North</td>
<td>None</td>
<td>AfAm</td>
<td>Wid</td>
<td>Not at Risk</td>
</tr>
</tbody>
</table>

*Names are pseudonyms.

**AfAm – African-American; NatAm – Native American
APPENDIX F

PROFILES: ANNETTE AND LYDIA

TABLES
**TABLE 11.1**

RISKS TO OTHERS AND RISKS TO SELF
ITEMS RATED >= 3.0 BY ANNETTE

<table>
<thead>
<tr>
<th>Body</th>
<th>Injuries</th>
<th>Germs</th>
<th>Sex</th>
<th>Reproduction</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Others</strong></td>
<td><strong>Self</strong></td>
<td><strong>Others</strong></td>
<td><strong>Self</strong></td>
<td><strong>Others</strong></td>
<td><strong>Self</strong></td>
</tr>
<tr>
<td>Family History (5*)</td>
<td>Injuries, bumps, bruises (4)</td>
<td>Injuries, bumps, bruises (4)</td>
<td>Germs (4)</td>
<td>Germs (4)</td>
<td>Immoral Sex (4)</td>
</tr>
<tr>
<td>Female Hormones (5)</td>
<td>Female Hormones (5)</td>
<td></td>
<td>Abnormal Sex (4)</td>
<td>Having children too early (3)</td>
<td></td>
</tr>
<tr>
<td>Weight (3)</td>
<td>Weight (3)</td>
<td></td>
<td>STD's (3)</td>
<td>Having children too close together (5)</td>
<td></td>
</tr>
<tr>
<td>Poor Immune System (5)</td>
<td>Poor Immune System (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal Nutrition (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Health (5)</td>
<td>Poor Health (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aging (5)</td>
<td>Aging (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Number in parentheses indicates the rating Annette gave to the item in interview #3.
**TABLE 11.1 cont.**

RISKS TO OTHERS AND RISKS TO SELF
ITEMS RATED >= 3.0 BY ANNETTE

<table>
<thead>
<tr>
<th>Chemicals</th>
<th>Lifestyle</th>
<th>Stress</th>
<th>Biomedical</th>
<th>Spiritual</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>Self</td>
<td>Others</td>
<td>Self</td>
<td>Others</td>
<td>Self</td>
</tr>
<tr>
<td>Food additives (4)*</td>
<td>Food additives (4)</td>
<td>Diet (3)</td>
<td>Diet (5)</td>
<td>Stress (4)</td>
<td>Stress (5)</td>
</tr>
<tr>
<td>Chemicals in cleaning supplies (3)</td>
<td>Chemicals in cleaning supplies (3)</td>
<td>Alcohol (4)</td>
<td>Bottling feelings (4)</td>
<td>Mammo-grams (4)</td>
<td>Mammo-grams (5)</td>
</tr>
<tr>
<td>Tobacco (3)</td>
<td>Not enough faith (5)</td>
<td>Biopsies (3)</td>
<td>Biopsies (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hormone replace-ment therapy (5)</td>
<td>Hormone Replace-ment Therapy (5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breast implants</td>
<td>Abortions (4)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Number in parentheses indicates the rating Annette gave to the item in interview #3.
### TABLE 15.1

RISKS TO OTHERS AND RISKS TO SELF
ITEMS RATED >= 3.0 BY LYDIA

<table>
<thead>
<tr>
<th>Body</th>
<th>Injuries</th>
<th>Germs</th>
<th>Sex</th>
<th>Reproduction</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>Self</td>
<td>Others</td>
<td>Self</td>
<td>Others</td>
<td>Self</td>
</tr>
<tr>
<td>Family History (5)*</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>STD's</td>
</tr>
<tr>
<td>Female Hormones (3)</td>
<td>Female Hormones (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Immune System (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imbalance in the Body</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Number in parentheses indicates the rating Lydia gave to the item in interview #3.
### TABLE 15.1 cont.

**RISKS TO OTHERS AND RISKS TO SELF**
**ITEMS RATED >= 3.0 BY LYDIA**

<table>
<thead>
<tr>
<th>Chemicals</th>
<th>Lifestyle</th>
<th>Stress</th>
<th>Biomedical</th>
<th>Spiritual</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>Self</td>
<td>Others</td>
<td>Self</td>
<td>Others</td>
<td>Self</td>
</tr>
<tr>
<td>Food Additives (3)</td>
<td>Food Additives (3)</td>
<td>Diet (5)</td>
<td>None</td>
<td>None</td>
<td>X-rays (5)</td>
</tr>
<tr>
<td>Chemicals in Water (5)</td>
<td>Chemicals in water (4)</td>
<td>Caffeine (3)</td>
<td>Taking Too Many Medications (3)</td>
<td>Taking Too Many Medications (3)</td>
<td>God's Will (5)</td>
</tr>
<tr>
<td>Pesticides (5)</td>
<td>Pesticides (3)</td>
<td>Tobacco (3)</td>
<td>Breast Implants (5)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Chemicals in Environment (5)</td>
<td>Chemicals in Environment (4)</td>
<td>Second-hand Smoke (3)</td>
<td>Second-hand Smoke (3)</td>
<td>Birth Control Pills (4)</td>
<td>None</td>
</tr>
</tbody>
</table>

* Number in parentheses indicates the rating Lydia gave to the item in interview #3.