THE ARTICULATION OF THE BIOMEDICAL AND THE CREE MEDICAL SYSTEMS

by

©Susan Marshall

A thesis submitted to
the Faculty of Graduate Studies and Research, McGill University
in partial fulfillment of the requirements for
the Degree of Master of Arts.

Department of Anthropology
McGill University

Montréal, Québec
March, 1984

TABLE OF CONTENTS

ABSTRACT

Permeating the articulation between the biomedical and the Cree medical systems is a distinctly Cree ideology based on the relations and ideology derived from the domestic mode of production. Also important in the interface is the effect of Cree medical knowledge. These determinants inspire Crees to espouse that the relations in the biomedical system should be constituted by the relations from the domestic mode of production and that the biomedical codes of disease should be complemented by the disease codes from the Cree medical system. In contrast, the treatments and pharmacopoeia of the biomedical system are seen as highly beneficial.

In this thesis, medical systems are examined in terms of the relationship between social formation, medical systems and experience. It is an approach in which the objectivity of social existence is juxtaposed against human subjectivity - in which groups are perceived as part objects, part subjects.

RÉSUMÉ

Sous-jacente à l'articulation entre le système biomédical et le système médical cri il existe une idéologie crie très distincte basée sur les rapports et l'idéologie issus d'un mode de production domestique. Egalement important dans l'articulation de ces deux systèmes, est l'effet des connaissances médicales cries. Ces déterminants inspirent les Cris à envisager les rapports à l'intérieur d'un système médical comme devant être basés sur les rapports provenant d'un mode de production domestique et que les codes biomédicaux de maladies comme devant être combinés aux codes de maladies présents dans le système médical cri. En contraste, les traitements et les pharmacopées du système biomédical sont vus comme étant hautement bénéfiques.

Dans ce mémoire, les systèmes médicaux sont examinés en termes de liens entre la formation sociale, les systèmes médicaux et l'experience vécue. C'est une approche qui juxtapose l'objectivité de l'existence sociale à la subjectivité humaine - à travers laquelle les groupes sont perçus en partie en tant qu'objets et en tant que sujets.

ACKNOWLEDGEMENTS

I would like to thank several institutions and people for their help in the production of this thesis.

The fieldwork in 1979 in Chisasibi (formerly Ft. George) was conducted with funding, travel and logistics provided by the Centre for Northern Studies and Research, McGill University, and the Montreal General Hospital. The Centre for Northern Studies and Research provided the funds for the research in Mistassini in 1980. In 1981, funding and travel for the work in Mistassini came from the Programme in the Anthropology of Development, McGill University, and the Montreal General Hospital.

Permission to do the research in Chisasibi and Mistassini was granted by the band councils in the two communities and the Cree Board of Health and Social Services. The research assistants in Chisasibi were Agnes Shem and Betsy Shem. In Mistassini they were Marlene Matoush and Mini Matoush.

I would like to extend my gratitude to Dr. Richard Salisbury, Programme in the Anthropology of Development for his generous support of my fieldwork and Pauline Boucher, Northern Quebec Module, Montreal General Hospital for her enthusiastic response to the possibility of using social science research in medicine.

I would also like to thank the members of my thesis committee: Dr. Margaret Lock, my seniour thesis advisor, Dr. Jerome Rousseau and Dr. Carmen Lambert. Dr. Lock and Dr. Rousseau patiently read, edited and commented on several drafts of the thesis. Dr. Lambert read and commented on the final draft.

Many people in Chisasibi and Mistassini made "doing fieldwork", a potentially traumatic experience, pleasureable. I cannot cite them all

but great appreciation must be conveyed to Agnes Shem and her family in Chisasibi for the wonderful times camping. And in Mistassini the months spent with Louise, Kenny, Julian, Phoebe, Becky and Nathaniel Blacksmith cannot go unacknowledged. I miss Becky's and Phoebe's wiggling little bodies crawling into bed with me in the morning!

Finally, I wish to thank the people who made the thesis presentable: Pam Dunk for the typing of the first draft, Barbara Hammond for typing the final manuscript, and David Denton, my spouse equivalent, for noticing the ghastly little errors.

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Biomedicine[1] in native communities has been accused of being ineffective, inhumane and unbeneficial. Some critics actually charge it with being a danger to health (Starblanket 1979/80). In the north for instance the presence of medical agencies and personnel has been directly related to an increased incidence of gastroenteritis and otitis media (Schaeffer 1973). With the signing of the James Bay and Northern Quebec Agreement[2] (henceforth referred to as the JB & NQA) (Quebec 1976) in 1975 the Crees acquired the legislative means to protect the subsistence sector and to administer all the social services, including medical, in their territory. For the first time the Crees have the legal right to design and organize the health delivery system serving their people. Native groups elsewhere in Canada have been brought into the health system through Community Health Representatives, through health boards and councils but lacking a clear mandate and budget they have usually only had an advisory role. With the Agreement a native group has the possibility of designing services which may reflect their interests.

Through an analysis of the articulation of the Cree and biomedical systems this thesis will define what these interests are. This will be done by first focusing on how the respective medical systems define disease and structure medical relations, and then by examining the confluence of the two systems. It will be demonstrated that permeating the articulation

of the two medical systems is a distinctly Cree ideology based on the dual modality of cooperation and sharing derived from the domestic mode of production. The domestic mode of production is the mode of production in which the household is the basic unit of production. To ensure subsistence security there is also cooperation between hunting groups but each household possesses the tools and skills to ensure a comfortable living, and is the basic unit of consumption and exchange (Scott 1979). Also apposite in the interface is the effect of Cree medical knowledge. Both the ideology from the domestic mode and Cree medical knowledge continue to structure the social relations in the medical encounter and to furnish the framework for the definition of disease.

Nevertheless, while constituting the key ingredients in the articulation, it is important to note that the effect of these determinants on the different aspects of the articulation is uneven. The result is that the Crees espouse that in the biomedical system serving them the relations from the domestic mode should structure the relations in the medical encounter, and that the codes of disease from the biomedical system should be complemented by disease codes from the Cree medical system. On the other hand, they also assert that the medicines and treatments of the biomedical system are, by and large, wholly acceptable. In fact, in comparison with their use of biomedical pharmacopoeia and treatments, Crees now use very few of the traditional medicines.

Conceiving of medical systems as an aspect of cultural production our problem is located within the marxist discourse on culture - a discourse in which culture has been perceived in a number of ways. One of the ways is based on a misrepresentation of the views of Marx. In this misrepresentation Marx is attributed with the creation of a base-superstructure

dichotomy in which the latter is mere epiphenomena of the former thereby implying that the economic base determines all cultural processes (Sahlins 1976). Althusser, on the other hand, conceives of social formation as consisting of a number of levels, including the cultural, each of which maintains its own autonomy, being constrained by the economic only in the last instance (Althusser 1971). Althusser does not however indicate how the levels are linked to social formation nor how autonomous each level is. The position developed in this thesis is that cultural productions are integrated with the social formation through common social relations and a shared ideology. I go on to argue that despite these links, cultural systems, and the medical system in particular, have their own specificity and temporality.

The notion of specificity used here refers to the trend in marxist cultural analyses which, while stressing that cultural productions must be situated within the particular mode of production, also claims that attention should be directed at the specific manner of meaning construction in the different forms of cultural production. Temporality implies that the relationship between social formation and the medical system (or any other kind of cultural production) is a variable one, differing according to the developments in the cultural production concerned, and different at different periods of history (Lovell 1980). It is an amalgam of these features, the links to social formation, the specificity and the temporality, which shape the interface.

In this approach to cultural productions the central issue is the relationship between social formation, medical systems and experience. It is broached by way of four propositions which in combination shape the interface between biomedicine and the Cree medical system. Briefly, the

four propositions are (1) that medical systems are interconnected with the social formation through common social relations and a shared ideology; (2) that despite these links the specificity and temporality in medicine also inform the contents of the medical system; (3) that change occurs in both medical systems as a result of experience in day-to-day life; and (4) that despite these changes, Crees maintain that the biomedical system in their communities should be partially constituted by the relations and ideology of the domestic mode of production and the knowledge from the Cree medical system.

The cause of death and morbidity in native communities is skewed towards the diseases of underdevelopment. Native leaders (Starblanket et al. 1979/80; Diamond 1981; Kistabish 1982) trace health problems on reserves to either poverty, or to the unequal distribution of health resources. The argument in the first case is that the medical system will be totally ineffective as long as people are poorly nourished and have no access to decent housing, water and sewage systems. In the second case, at issue is the poor geographic distribution of health services and disease-prevention infrastructure. Whether one or the other, the corrective is located outside the medical sphere in the conditions which precipitated the situation. Both reasons are said to be inseparable by the radical critique of medicine which maintains that underdevelopment and class relations account for the poverty and its companion, the unequal distribution of health resources (Renaud 1978; Bodenheimer 1979; Navarro 1980).

While these factors are of vital importance in understanding the nature of health services on reserves this thesis explores another dimension of the problem. Implicit in the critique of health services which was just presented is the assumption that biomedicine is an "unalloyed

benefit to humanity" (Ehrenreich 1978). Through the discussion of the articulating medical systems this thesis questions the value, the intrinsic goodness, of certain aspects of the biomedical services. For although the Crees consider the treatments and pharmacopoeia of biomedicine more efficacious than their own, they are also critical of the relations and ideology of the biomedical system. Of great concern to them as well are the discrepancies in the codes of disease between the two systems, particularly the biomedical codes of disease which do not quickly identify some of the disease symptoms which are known by the Crees to have life threatening consequences.

Before proceeding a number of clarifications are in order. As stated above this discussion is located in the marxist discourse of culture. According to Geertz (1974:89) culture denotes

> . . . an historically transmitted pattern of meanings embodied in symbols . . . by means of which men communicate, perpetuate and develop their knowledge about and attitudes towards life.

Since symbolic meaning plays an active role in disease formation, and in the classification and management of illness and therapy, medical systems are regarded as an intrinsic element of the cultural world (Kleinman 1974: 206). Kleinman (1974:208) defines a medical system as

> . . . an ordered coherent body of ideas, values and practices embedded in a given cultural context from which it derives signification. It forms an indissoluble and hierarchical whole in which healing acts are closely linked with ideas about disease causation and models for classifying disease.

Two medical systems, biomedicine and a popular medical system (the Cree medical system) are under scrutiny here. The popular medical system consists of the medical techniques, beliefs and practices which are (1) carried out among family members and friends without professional sources

of advice, and (2) which are passed on informally (Lock 1980:15). In the case of the Cree medical system, the popular medical system includes all those medical beliefs and practices which are uniquely Cree plus the beliefs and practices which have been incorporated as a result of contact with Hudson's Bay Company traders and with Christian missionaries.[3]

The biomedical system is a transnational entity characterized by an emphasis on institution-based therapy, technological resources and the biomedical model of disease. Based on contemporary theories of biochemistry and physiology the greatest achievement of the biomedical model of disease is in elucidating the mechanisms of disease and in devising new treatments (Engel 1977:129). Biomedicine in northern native communities is primarily dispensed through the nursing station programme. Hence in all the Cree communities, except Chisasibi, nurses rather than physicians fulfill the role of health practitioner. And because there are only two hospitals in the Cree area, one in Chibougamau and the other in Chisasibi, more emphasis is placed on outpatient care. Despite this the health delivery system is still characterized by the dominance of the biomedical model of disease and technological intervention.

Kleinman (1973) claims that the medical system is firmly rooted in the given social context but neglects to demonstrate what these roots are or the mechanisms through which they are linked to the larger context, a criticism which applies equally to the work dealing with medical systems in the north. Through the elaboration of our four propositions we are able to amend these gaps and explicate the interface between the Cree and the biomedical systems.

Medical Anthropology in the North

Interest in native medical systems in the north by anthropology has been peripheral, generally being confined to descriptions of the eufunctional and disfunctional utility of the indigenous beliefs and practices. Failing to distinguish medicine from religion or politics the early work reduces the medical system either to an artifact of the supernatural or to a mechanism of social control. Prejudiced by the premise that only westerners have rational minds whole areas of native thought were overlooked as their medicine was relegated to the realm of the supernatural (Jetté 1907, 1911; Chapman 1921; Clements 1925; Cooper 1928; Densmore 1929; Ritzenthaler 1945; Ackerknecht 1948; Lantis 1950). By the 1960's the pendulum had swung and conventional wisdom treated medical beliefs and practices as one of the many rational, coping mechanisms in indigenous societies (Marsh and Laughlin 1956; Oswalt 1957; Laughlin 1963; Young 1969; Milan 1974). This was the view of the scientific northerner experimenting and developing adaptive techniques to maximize survival.

Punctuating this literature are numerous references to culture-bound syndromes, such as Windigo Psychosis, a mental disorder particular to northern Algonkian groups (Cooper 1933; Landes 1938; Brown 1944; Burgess 1947; Barnouw 1963; Fogelson 1965; Rohrl 1970; Brown 1971; Hay 1971; Ridington 1976; Preston 1977; Bishop 1973) and Arctic Hysteria, said to be the classic Eskimo mental illness (Brill 1913; Ackerknecht 1948; Gusson 1961; Parker 1962; Freeman et al. 1978; Wallace 1961; Foulks 1972).

While a great deal has been written about the articulation of the capitalist and domestic modes of production in the north, anthropology has directed little attention to the interface between the concomitant medical systems. By way of contrast, references abound in the medical literature

to the overwhelming acceptance by native people of biomedicine (Perkins and Church 1960; Bain and Goldthorpe 1963; Brett 1969, Webb 1973; Butler 1973; Draper 1976; Schaeffer 1977; Delahaye 1979). Subscribing to the approach prevalent in the modernization orientation, these references chart the 'progress' of native groups along a unilinear path from traditionality to partial acculturation to modernity according to their acceptance of biomedicine and public health.

Theoretical orientations within anthropology concerned with the interface between the biomedical and indigenous medical systems have become more refined since the initial generalizations that (1) people are basically pragmatic and will choose the system which is the most efficacious (Erasmus 1952), or that (2) the biomedical system is chosen to treat incapacitating diseases while the indigenous medical system is preferred for the treatment of chronic nonincapacitating diseases (Gould 1965), or that (3) people choose between the two systems on the basis of their etiology of disease (Romanucci-Ross 1977). Despite much evidence to the contrary, recent work continues to predict a process of evolutionary change whereby the indigenous medical system is relinquished and replaced by the biomedical system (Wood 1977; Foster 1978).

In the northern literature are a number of articles which evince the continuing relevance of the indigenous medical system. Wenzel (1980), writing about the Inuit, states that the Inuit medical system is perceived by the people as more satisfactory in a number of areas (including structure, treatments, and role relations). And O'Neill (1980) demonstrates that aspects of the Inuit medical system have adapted to the changing times and still give meaning. Both articles are a more sophisticated version of the modernization orientation - their approach describing a modified path of

development, mediated by feedback mechanisms but still continuing in the direction of the biomedical model. Most of the references to the continued vitality of native medical systems in the north have been confined to works addressing the nature of belief systems rather than the medical system per se (Smith 1973; Black 1977; Ridington 1978). Concentrating on native systems of classification, cognitive maps, and descriptions of the supernatural these authors demonstrate where the symbols are traditional, where they have changed and where they are an amalgam of old and new.

Whether the emphasis has been on the functional utility of the medical system or an analysis of the belief system this literature has by and large ignored the basis for the existence and persistence of the native medical system. In the emphasis on ideas, values and roles, the dialectic between the medical system and social conditions has been neglected thereby impeding our understanding of the internal dynamic of the native medical system and its articulation with the biomedical system. I would suggest that medicine is socially grounded, operating within the parameters of structural constraints and day-to-day experience, both of which inform its form and processes; and both of which shape the interface between the two systems.

The study of the articulating medical systems contributes to our understanding of the processes of transition within contemporary Cree social formation. Cree efforts to protect the domestic mode of production through the JB & NQA are well documented (Quebec 1976; Norbert 1976; Scott 1979; LaRusic 1979; Feit 1982) but less is known about the extent to which people would have the relations and ideology of the domestic mode structure the other institutions over which they now have administrative control. Evidence suggests that despite the dominance of the capitalist

mode of production, the domestic mode continues to structure relations and ideology in the subsistence sector. Expanding the jurisdiction of the social relations and ideology of the domestic mode, my data illustrate their vitality in the Cree medical system both to people directly involved in the subsistence sector and to Crees outside it.

In order to support the position that the knowledge, ideology and relations of the dominated domestic sector may have determinance throughout social formation, and in particular in the Cree medical system, I will discuss Cree social formation in terms of the uneven penetration of Cree social formation by the capitalist mode of production. I will then proceed by developing a concept of social formation which accords an essential role to culture.

The Crees of James Bay

Numbering about 8,000 the Crees occupy an area of northern Quebec about two-thirds the size of France. Theirs is a hunting and trapping society which persists despite involvement in the international fur-trade since the end of the seventeenth century, despite the increased involvement with the federal and provincial governments throughout this century, and despite the accelerated rate of social change fuelled by the hydrodevelopment projects of the last twelve years (Feit 1982:376).

Cree communities, of which there are eight[4], are divided into two sectors: a hunting and trapping sector which is more bush oriented and a sector which spends most of its time in the settlement. As there is much movement between the bush and the settlement distinct groups are not always associated with either. For those committed to hunting and trapping the period in the bush is seasonal with winters on the land and summers in the settlement. Many of those who are more settlement oriented also

weekend in the bush, participate in the spring goose hunt and in the fall go moose hunting. The more settlement oriented Crees are further tied to the domestic mode through the distribution by hunting families of bush food, through kinship networks, through symbolic activities and through political responses to the non Cree world[5] (Scott 1979:107).

While all Crees, whether settlement or bush oriented, are linked to the domestic mode they are also bound to the capitalist mode of production through the sale of labour, the sale of furs, the receipt of transfer payments, the use of commodities and services, and involvement in the industrial development in James Bay.

In response to the increasing encroachment of the larger Canadian society the Crees have consistently sought the means to protect the subsistence sector. These efforts culminated in the signing of the James Bay and Northern Quebec Agreement (JB & NQA), a comprehensive land claim in which aboriginal rights to the land were extinguished in return for certain rights and services. Provisions were entrenched for the creation of independent Cree controlled structures which would manage hunting and trapping and which would assure Cree hunters and trappers a guaranteed annual income for every day spent on the land. Cree managed structures dealing with health, social services and education were also established. The latter are not independent but like similar institutions elsewhere in the province are fully integrated into the provincial infrastructure (Norbert 1976).

Cree Social Formation

Cree social formation is the complex social whole distinguished by two modes of production in articulation, the capitalist and the domestic, and all the institutions, practices and components (including religion, politics, economics, ideology, medicine, etc.) constituting daily life.

Discussions of the articulation of the Cree and capitalist mode of production is divided sharply into two camps. Failing to recognize any integration between the dominant capitalist mode and the domestic, one side has pronounced a unilineal direction of change away from the latter as a result of market relations (Leacock 1954; Chance 1968, 1970; Ouellette 1977). Representing a trend in anthropology which accords little importance to indigenous factors, native cultural traditions in the contact situation are perceived as overwhelmed by the more powerful external influences. The assumption is that in the extension of metropolitan-hinterland relations, the control and continuity of native culture has been usurped due to the destruction of the environment, social institutions and the domestic economy.

The other side underlines the persistent vitality of the Cree domestic mode in continuing to structure Cree social life (Knight 1968; Feit 1969; Tanner 1979; Scott 1979). Not disputing the subordinate and dependent position of the Crees vis-à-vis the capitalist mode, they argue that the metropolitan-hinterland argument which rests at the level of market relations ignores the specific articulation - a conjunction which in the case of the Crees reveals that groups may participate in the economic system of the dominant mode and not be a capitalist mode of production. They suggest instead that a theoretical emphasis on the relations of production rather than market relations indicates that dependence does not eliminate the vitality of hunting, the objective relations of cooperation in the hunting mode, and native control over their main economic base. Hence, although furs are treated as a commodity once they enter the trade controlled by the trader, they are produced within a domestic mode of production which is organized by a set of social relations, values and ideology that is distinctly Cree (Tanner 1979:12).

With the signing of the JB & NQA there is additional evidence of an increased participation in the domestic mode and an increased commitment to the attendant social relations, ideology and identity (Scott 1979). Aided by the Income Security Programme, the guaranteed annual income for hunters, there has been a sharp increase in both the numbers of people in the bush and the time spent there. Needless to say the increase in subsistence activity favours the increased enculturation of the Cree world view and social relations. At the same time, with the exception of in the Cree bureaucracy[6], the employment of natives in the capitalist mode is not only low but is limited to short periods of time. Also, since the late nineteenth century the fur-trade, although vital to the Crees, has represented a spent economic force in relation to the dominant economy, leaving Crees dependent on transfer payments and services from the federal and provincial governments in order to survive. The result is that Crees are incorporated into the capitalist mode primarily as dependents on services and as consumers. Hence, although the capitalist mode of production is in a position of dominance over the domestic mode, within Cree social formation itself the latter continues to be the major constituting force. The upshot is the persistence of Cree social relations, ideology and world-view through a series of changing forces and relations of production with the larger society (Scott 1979:105).

Because of the vitality of the domestic mode and the Crees' weak links with the capitalist mode of production I suggest that elements of the domestic mode and the Cree medical system will be present in the articulation of the biomedical and the Cree medical systems. To be more specific, in the articulation I would expect elements of the domestic mode and the Cree medical system to have a dominating influence. Their presence is ascribed

to the active role of cultural processes. The central concern now is to establish a concept of social formation in which all its components are perceived as interconnected, and in which culture is accorded a determining role but not the independence of an uncontrolled and ungrounded social force. Within this view we must be able to explain medical relations, ideology and knowledge and their relationship to social formation and change.

A central focus in the discourse on culture is ideology. Ideology has been defined in a number of ways by marxists. It is false consciousness or misrecognition; to others it is the ideational, signification, the production of all ideas; or it could be the ethical, juridicial, political and philosophical ideas and visions of social reality of a particular class or group (Williams 1977:55). I will adopt the last usage. Medical ideology will include the ethical, juridical, political and philosophical ideas of the domestic and capitalist modes of production as they are expressed implicitly or explicitly through the respective medical systems. Medical knowledge, on the other hand, covers the whole range of information which has been perceived, discovered or inferred in the study and practice of medicine. It includes, but is a much larger category than the term medical ideology. Medical practice refers to the actual management, rather than the study, of disease. It has been used alternatively (1) as a generic term to include all branches of medicine including dermatology and surgery, (2) to include internal medicine as opposed to surgery and dermatology or (3) to mean internal medicine which is focused on adults (rather than on children which is then considered the domain of pediatricians) (Hahn 1982:223). Because of the range of issues which I am interested in in this thesis I employ medical practice as it is presented in the first

definition, that is as a generic term.

Althusser conceives of social formation as consisting of three levels: the economic, political and ideological, each of which maintains its own autonomy, being constrained or overdetermined only in the last instance by the economic (Althusser 1971). His approach has appealed to cultural marxists because with the notion of relative autonomy, cultural productions are attributed constitutive powers of their own and are no longer said to be determined by the economic base. His approach is not helpful to us, however, for although he posits that the levels exist in articulation it is not clear just how independent or autonomous 'relative autonomy' is. Applying this to our problem it does not explain the links between the medical system and social formation, nor the dynamic in medical relations, ideology and knowledge in either the Cree or biomedical system. Neither does it help to describe the interface between the two systems.

Althusser requires the vague concept of overdetermination because of a deviation he takes from Marx's concept of production in which he limits the economic to such components of the labour process as technology and capital. The social relations of production and reproduction are attributed by Althusser to the political instance, to superstructure, resulting theoretically in a distinct separation between levels of social formation (Clarke 1980:40). Marx, on the other hand, shows the interconnections in social formation but is said to create a base-superstructure dichotomy in which the latter is mere epiphenomena of the former. Constructing the economic from both the relations and forces of production certain interpretations of his later work maintain that the economic determines the political, social and spiritual processes of life (Sahlins 1976:5). Within this paradigm the separate components of superstructure are said to

automatically reflect the social relations of the economic level. But this perception of superstructure provides an insufficient explanation for how the medical system of both Crees in the domestic mode and Crees in the capitalist mode may be constituted by the relations and ideology of the domestic mode.

While accepting the notion that all components of the social formation are linked through the social relations of production, in order to show how the medical system of the Crees not involved in the domestic mode exhibits features of the domestic mode, a key role must also be extended to the symbolic and ideological coordinates which activate social formation in general and the economic in particular. The argument is that a focus on the economic base provides an inadequate account of the cultural order, that instead there is culture in the economic and symbolic order in day to day activity (Sahlins 1976:3). This requires the expansion of the concept of economy to include culture and ideology as an integral and organic part of the social relations and forces of production. The forces of production are hence transformed into bearers of social relations and culture, thereby collapsing the infrastructure-superstructure dichotomy. Transposing this to the Cree, the domestic mode, having been partly symbolically constituted, cannot be reduced to the formal requirements of the economic. By extension we would also expect the symbolic order, that is culture and ideology, to have a determining influence throughout social formation and hence in the popular medical system.

Within this paradigm culture escapes being reduced to 'fetishized utility' (Sahlins 1976). At the same time because all components are linked to social formation through the social relations of production, culture is not relegated the power of an uncontrolled social force as it is

by the culturologists. Thus in order to clarify the mechanism of the articulation of levels and to avoid the vague concept of overdetermination in the last instance, my formulation of the social whole attributes links in social formation to the presence of a consistent set of relations, and a shared ideology and culture, all of which permeate the components of the social formation. And in the case of the Crees, the relations, ideology and culture of the domestic mode are informed by a symbol system which also has determining power in the Cree medical system.

Methodology and Research Techniques

The study was conducted in two Cree villages, Ft. George (now Chisasibi) and Mistassini, during the summers of 1979, 1980, and 1981 by myself and four Cree research assistants. Because medical systems encompass a wide field of study I narrowed the focus of observation to children's health care. The group of Crees between the ages of one day and twelve years was chosen because it is the group most susceptible to disease and is the most frequent user of the biomedical services. Within the area of children's health I concentrated on breastfeeding practices, and the beliefs and practices surrounding respiratory disorders, gastroenteritis, otitis media and skin infections, together which comprise the bulk of the health problems among Cree children.

Data were derived primarily from interviews with two groups of people, the mothers of the children under twelve years of age and Crees over the age of fifty-five. The former were chosen on the basis of availability. Although this is not the best sampling technique, care was taken to preserve the ratio of bush to settlement people interviewed, as well as to include women representing a wide range of circumstances including education, period of time spent in the south, age and work experience. The high degree

of uniformity in their statements lends credibility to the results despite the lack of rigour in sample selection.

The older people were interviewed because their extensive experience with health matters renders them the most articulate about Cree ideas of health and disease. It is they who are the repositories of the Cree knowledge of medicine and it is to them that health problems are frequently brought before help is sought from biomedical personnel. In total 170 Crees were interviewed. Nurses at the hospitals in Chibougamau and in Chisasibi and in the nursing station in Mistassini were also interviewed. General information was obtained from Band Lists, the Income Security Programme, Cree School Board lists, band councillors and personnel of the Cree Board of Health and Social Services.

This study employed a multi-instrument research approach in the field on the grounds that the various methods in combination would better provide a broader perspective. Each of the techniques was applied to all four propositions but the emphasis on one technique or another varied according to how successful it was in eliciting the information. Appendix A indicates how the four propositions were operationalized in a structure of primary data gathering.

Participant Observation

Participant observation was used to acquire evidence of the extension of the relations and ideology of the domestic mode into other spheres of social life. More specifically, it looked for expressions of sharing and cooperation in all aspects of day to day life (i.e. in food sharing, cooperation in ceremonies, activities, etc.). Through this technique I also attempted to witness medical events such as health maintenance practices, breastfeeding practices, and the response to episodes of children's illness.

Using this approach I casually attempted to engage people in discussions of all four aspects of our theoretical problem. And I used it as a mechanism of checking and following up on information appearing in the unstructured interviews and offered by key informants.

Key Informants

Key informants were referred to for all aspects of the problem but their services were particularly relied upon for detailed discussions of Proposition 2, about Cree ideas of health care, definitions of disease and medical practice. Because I was interested in intergenerational ideas here, I enlisted the aid of both younger and older adults as key informants. Both were crucial in explaining some of the events seen in participant observation and the information acquired from the structured and unstructured interviews.

Structured and Unstructured Interviews

Structured and unstructured interviews, with an emphasis on the latter, were the source of most of the data. Seeking security in consistency and in the possibility of quantifying all the responses I began each field season with a structured questionaire dealing with concepts of health and disease, relations in the medical encounter and medical treatments. Within a week of beginning each summer's fieldwork the questionnaire was always abandoned in favour of a more informal conversational approach. It was found that when the discussions were no longer controlled through tightly directed questions and answers, the respondents became more interested in raising issues which were neither on the questionaire and which I could not otherwise have anticipated.

Through a combination of the respondents introducing issues which were pertinent and the researcher pursuing issues which she considered relevant we were able to develop a more meaningful idea of the Cree medical system and the Crees' relationship with the biomedical. The results contrasted sharply with the short 'yes', 'no' responses offered by the respondents when initially confronted by the closed questionaire. In the absence of any baseline information upon which to base relevant questions the emphasis on the qualitative information appeared to be the most appropriate.

This is not to suggest that the unstructured interviews are without their drawbacks, for while obtaining data which are rich in detail and variation they do not necessarily lead to a data-base upon which reliable statistics can be drawn. In my fieldwork the same topics were discussed with each of the respondents but some chose to elaborate more fully in different areas, the results (except in the case of breastfeeding) not lending themselves to meaningful quantification. The consequence is that the data permit me to synthesize a good understanding of how Crees diagnose disease, consider relations in the medical encounter, and percieve medical treatments but I do not think that it is appropriate to pin figures on the responses.

The information is hence presented in general terms as 'most of the respondents', 'all the respondents', etc. The one exception to this with regard to my fieldwork is with breastfeeding. As mothers could readily recall why their children had and had not been breastfed, the part of the interviews dealing with lactation were more structured and the data has been presented in percentages. Apart from this, the structured part of the interviews was usually limited to obtaining census material including age,

education, work experience, time in the bush, etc.

All the interviews were conducted in the homes of the respondents and in the language of their choice. The discussions with the older people took place in Crèe either with an interpreter doing the necessary translation or with Crée research assistants conducting the interviews on their own. The discussions with the mothers of children under the age of twelve were either in Cree or in English. While most of these women spoke both languages, some felt more comfortable being interviewed in Cree so a Cree research assistant would be present at these interviews.

Interviews were always set up a day in advance, at which point it would be established which language the person preferred to be interviewed in. As Crees in the communities have been interviewed 'to death' one could never say that research conditions were ideal, however, because there is a great deal of concern about children's health the people were willing to participate. In fact during the course of the three summers' work only two of the mothers who were asked to be interviewed, declined. In general the concern for their children in concert with their hope that their opinions would contribute to improving health services overshadowed the prevailing cynicism about interviews.

Methodological Problems

The emphasis in this thesis is on the identification of the Crees' interests in the articulation of the biomedical and Cree medical systems. Because of this the Cree medical system and the views of the Crees provide the point of reference against which the biomedical system is measured. This approach results in two problems in my representation of the biomedical system. Firstly, in the juxtaposition of the medical systems the relations in the biomedical encounter and the biomedical definitions of

health and disease are lifted from their context. In the process the biomedical system, while not deliberately distorted, appears as a caricature of itself. This is especially true when these features are discussed in terms of the structural antecedents of biomedicine in social formation, when not only are they presented without their medical context but they are also presented as the automatic and necessary by products of capitalist social formation. This problem is slightly reduced, but not removed, in the discussion of the role of experience in day to day life in moderating the effects of social structure. With the point of reference and the fieldwork focused primarily on another medical system the bias remains.

The second problem concerns the tendency to refer to biomedicine as if it were one monolithic, homogenous structure. Recognizing that biomedicine consists of numerous branches, some with different epistemologies and practices, this is an over simplification. It should be made clear that in this thesis I am talking about biomedicine as practised in the nursing stations in Cree communities and in the hospitals which Crees frequent in Chisasibi and Chibougamau, and not all of biomedicine.

Thesis Organization

The thesis is organized in the following way. To set the context of the contemporary situation, Chapter II will examine the history of development and health care among the Crees in James Bay. In Chapter III I will subject the Cree medical system to the questions posed by Propositions 1 and 2 - that is the degree to which the Cree medical system is structured by its links to Cree social formation and the degree to which it is structured independently of it. Chapter IV also discusses Propositions 1 and 2 but this time as they pertain to the biomedical system. The articulation of the two medical systems is analysed in Chapter V in terms of Propositions

3 and 4. Taking into account those aspects of the two medical systems which are in the process of change in the Cree communities this chapter focuses on how Crees would structure the biomedical system in their villages. Chapter III and IV are concerned with the antecedents of medical systems in social formation and conceptual models of disease. Stressing the importance of response and reaction to structure Chapter V illustrates the dynamic established in medical systems as a result of experience in day-to-day life.

FOOTNOTES

[1]Biomedicine, or the biomedical system, is a transnational entity characterized by an emphasis on institution-based therapy, technological resources and the biomedical model of disease.

[2]The James Bay and Northern Quebec Agreement is a comprehensive land claim involving the native groups inhabiting Region 10 in Quebec and several government and paragovernment agencies. Signatories to the Agreement include the Cree, Inuit, Naskapi, the federal government, the provincial government, Hydro-Quebec, SEBJ and SDBJ.

[3]Although Roman Catholic missionaries travelled through the Quebec-Labrador peninsula during the late 17th century the Anglican Church, until recently, has had the most success converting the Crees. In health its influence is manifested by the importance ascribed by the Crees to the role of God in healing, by the reduction in certain rituals associated with healing and by modifications in the etiology of disease.

[4]The eight Cree communities include the five coastal villages of Great Whale, Chisasibi, Wemindji, Eastmain, and Rupert House, and the three inland communities of Nemiska, Waswanipi and Mistassini.

[5]The Grand Council of the Crees and the Cree Regional Authority, a complex bureaucracy, was developed to administer the JB & NQA. Among its many concerns is the maintenance and the protection of the subsistence sector, an endeavour which requires constant negotiation with federal and provincial agencies.

[6]A number of the educated Crees find employment with the Grand Council and the Cree Regional Authority. Nonetheless, unemployment and underemployment plague the settlements.

CHAPTER II

DEVELOPMENT AND HEALTH CARE IN JAMES BAY

Introduction

I will begin with a brief outline of the theoretical orientation within which I frame development and interpret the history of the Crees and the health services offered them. The state functions as the key mediator in both the interface between Cree institutions and capitalist social formation, and in the distribution of health resources. Analyses of the state often confine the state to a dual modality of ideology and repression in the interest of the bourgeoisie (McLennan et al. 1977). The implication is that political power is determined by the relations of production. By extension, the marxist critique of medicine asserts that the biomedical system is also a direct reflection of the relations of production (Navarro 1976, 1978; Dixon and Bodenheimer 1977).

As an alternative to this approach I suggest an expanded notion of the state in which the relations of production fuel, but do not exhaust the activities of the state. Because of the influence exerted by various fractions and status groups, and its own internal requirements, the state must respond to demands other than those of the bourgeoisie alone (Poulantzas 1978). For instance, in the case of the Crees while the relations of production have shaped much of the articulation between Cree social formation and the state, this should not obscure the dialectic between the two as the Crees respond to the encroaching white society. For when

used, the manipulation by Crees of political pressure has permitted them to negotiate for more than their position in the relations of production would have predicted.[1]

Consistent with this orientation I propound the argument that relations of production alone are insufficient indicators of the distribution and approach to health services. The medicine exported to Cree communities from the metropolitan centre was (and is) shaped by the confluence of factors derived from the political/economic requirements of the State, the internal structure of 20th century medicine and from the effect of Cree social formation. Their intersection, determining the kind of medical services available to the Crees, the nature of the relations in the medical encounter and the approach to disease, define the different periods of Cree medical history.

A constant weaving through all the periods is the fact that despite changes in details the State and the medical system it exports are the offspring of capitalist social formation. Both have undergone changes in the 20th century, the State developing from liberal capitalism to state interventionism (Offe 1975), and medicine going from a cottage industry to industrial production (Navarro 1978). But the unequal manner in which health services are distributed, the definition of disease and the focus in medicine on the clinical and curative rather than prevention is a perpetual reminder of medicine's antecedents in capitalist social formation.

Development and Health Care until 1930

For the Cree the die was primarily cast in the manner in which they were drawn into the fur-trade and then subordinated to industrial capitalism. Generated and shaped by 18th and 19th century British Imperial Policy, the roots of capitalist penetration in James Bay were directly determined by

the economic relations of a commercial imperialism in which a staple resource, first fish, furs and lumber and then later wheat, oil and minerals was exploited by British/Scottish merchants. Commercial relations continued to inform relations after Confederation in 1867 through the collaboration of the new State with the almost exclusively foreign owned export sector (Glenday et al. 1978). Because of the nature of the political and economic dependence on a foreign metropolis, the State adopted an interventionist role as no other groups had emerged which were capable of directing the pioneer society. From the very beginning the State assumed the authority to regulate the social, public and private institutions of the country (Clement and Drache 1978). In the absence of organized groups with opposing interests the new State primarily confined its interests to bolstering the economic affairs of the export sector. It is within this context that the State formulated its policies towards native people.

The basic principles and goals of Canadian Indian Policy were unilaterally enshrined, without native consultation, by the British North America Act of 1867 and the Indian Act of 1876. Granting the State absolute legal and administrative control over native people, the Indian Act and its subsequent amendments legalized a system of institutional, economic, political and geographic segregation and domination. It articulated the legal definition of who could be considered an Indian, it determined directly and indirectly the roles Indians could play, and also established the boundaries of where they could settle (Carstens 1971). Since one of the goals of the government was to dissolve the reserve system thereby freeing native lands no measures were taken to assure the long-term survival of native communities. Explicit regulations specifying that all decisions taken by bands be ratified by the government, in fact, effectively blocked

native control over economic and political development. Like colonial rule in general, the intention was not to accommodate the aspirations of those whose lands and resources were coveted but to absorb them in the bid to buy and sell.

The first penetration of capital in James Bay occurred at the end of the 17th century in the form of the fur-trade. The fur-trade revealed a colonial strategy which was interested in exploiting the fur resources but, concerned with the costs of such an operation, eschewed settling the land. To expedite their goal, the colonialists operated the trading posts while the natives conducted the hunting and trapping activities. The trading companies organized production at the posts (Judd 1980) through a rigid division of labour but in the bush Cree social formation continued to structure production. The Crees controlled both the means of production, that is how the land was owned and the tools involved in the hunting and trapping, and the internal relations of hunting and trapping. At the same time however, by virtue of their involvement in trade, they became petty commodity producers subject to the dictates of a market over which they exercised little control, a market which determined prices, the terms of trade, and which animals were in the most demand. And as consumers they became dependent on the external exchange system for the technology to rationalize the hunting and trapping sector. Thus, despite their relative autonomy on the land theirs became a position of subordination, vulnerability and dependence vis-à-vis the external system.

One of the consequences for the Crees of their involvement in the fur-trade was the increased exposure to a range of infectious disease. Lacking resistance the people succombed rapidly. For instance, in 1903 Reverend Walton writes of having lost 100 people along the coast in a

measles epidemic (Desy 1968). The new diseases were in sharp contrast to the disease experienced by native people in pre-contact times. Scattered over the land in hunting and fishing camps death for the most part had been caused by trauma and infant illness or periodic famine (Weller 1981, Schaeffer 1973). Some viral and bacterial infection also developed causing boils, skin infections, diarrhea and respiratory disorders but they were usually confined to the isolated hunting group in which they had occurred (Fortuine 1981). Aggravating the hardship of the new diseases were the recurrent periods of starvation punctuating the 20th century. Caused by a combination of ecological and market forces affecting the decline in major game animals throughout the Quebec-Labrador peninsula, the periods of hunger rendered the people more vulnerable to the epidemics of measles, influenza and T.B.

The traditional techniques and medicines were no match for the virulence of the waves of epidemics. Early traders and missionaries often gave medical help to the Crees. Relieved to have their duties discharged by the traders and missionaries, the government provided them with a stipend for health care and for the treatment of the disabled. By Confederation the fur-trade, although still a vital trade for the Indians, was a spent economic force relative to the rest of the Canadian economy. The government was too preoccupied with Western settlement, with the construction of the transcontinental railway, and with investment formation in Ontario and Montreal to turn its attention to James Bay. With the establishment of R.C.M.P. posts to assert sovereignty over the north in the late 19th century Canada claimed territorial rights to the region but fulfilled no obligations. It was hence content to limit its involvement to defraying some of the expenses incurred by the traders and missionaries

for providing health services and education to the natives (Jenness 1964).

Firm lobbying by the Church for the government to assume a larger responsibility for the care of native people forced it in the 1920's, however, to recruit doctors to travel with the summer supply ships, the Arctic and the Beothuk, to the northern coastal communities (Brett 1969). The ship medical officers did not have much influence on the people. Their visits were short and the Crees say that few felt any desire to seek their services. Gradually as individual medicines proved their usefulness they were incorporated into the Cree pharmacopoeia:

> For a long time I did not use the doctors' medicines. Then I found out about the painkiller. It was good for severe things and strong pains and cuts. That was the first medicine that I bought but when I found out what it was good for I wanted it.
> (Interview 5)

Despite high rates of disease the government thought that land-based services would not be beneficial as the people were considered too migratory.

Until the Oblate mission was established in Fort George (now Chisasibi) in 1922 the Hudson's Bay Company (henceforth referred to as HBC) personnel and the missionaries were the only continuous source of outside medicine. Staffed by Père Couture, well known in local folklore for his skills as a doctor, and Grey nun nursing sisters, the establishment of the mission coincided with the period when the caribou herds had declined to their lowest, when the beaver population was just beginning to decline and when disease was on the increase. The priest and nuns did not succeed in converting the Crees to Roman Catholicism but they quickly won their respect for being good healers. As practised by them the medicine was informed by its antecedents in Christianity. But, focused on giving comfort to the ill, treating the problem rather than solving it, it did not question the political and economic origins of the starvation and disease. The

first extended contact with outside medicine was, however, conducted in a manner which conformed with Cree social relations. Based on the idea of helping people, it forged a personnel relationship between healer and patient and it reflected the importance of sharing and cooperation. Most importantly to the Crees, it corresponded with some of their ideas about the relationship between healing, illness and God.

Still there was no full-scale conversion to the outside medicine. As the Crees spent most of their time in the bush there was little actual contact between individual Crees and the mission. European medical practice of the time was not totally effective. In fact long after the mission had been established there continued to be an exchange of medical information between whites and the Crees. Stories abound among the Cree of whites who had been cured of their illnesses by Cree medicines when their own medicines had failed:

> In the old days I used to teach the white people how to use the Indian medicines. The HBC manager's wife would come to me when her children had colds, coughs and toothaches and I would tell her what to do. (Interview 16)

In short at this point there was a mix of Cree and European pharmacopoeia with the Crees utilizing primarily their own medicines to which they added samples of the European. With the introduction of the European medicines and with the work of the missionaries some of the healing power of shamans was reduced but in general Crees continued to subscribe to the popular medical system.

Development and Health Care, 1930-1944

The 1930's witnessed a change in the role of the federal government regarding both southern Canadians and the Crees in James Bay. Impelled by the exigencies of the Depression the government for the first time

departed from its economic commitment and launched a range of social services. The conditions during the Depression demanded that political parties at least appear to moderate the interests of business in favour of alleviating some of the hardship caused by the economic difficulties and the drought. The appearance of mitigating the difficult conditions is key here for the range of social services offered by the government did not amount to much. Strikes and demonstrations by the working class and unemployed only succeeded in forcing the government to contribute a limited amount of relief (Taylor 1978). Instead the responsibility for the sick, old, and the unemployed continued to be primarily the domain of the municipalities, most of which were already bankrupt because of the pressure put on them for food, clothing and shelter.

This period in the north was also marked by extreme hardship. The price of furs had dropped and the number of game animals had greatly declined resulting in more severe food shortages. To exacerbate the crisis the incidence of infectious diseases, particularly T.B., measles, whooping cough and influenza had soared and morbidity was high. Of Quebec-Labrador, Speck (1977) writes that "not a single person at summer gatherings was free from cough" with bronchial and pulmonary inflammation being one of the main causes of death. In spite of this, the terrible crisis in health care was responded to by a reduction in funds for northern health - the money being diverted to attend to the depression in the south (O'Neill 1979:78).

Although the rate of morbidity and mortality was high the government was not interested in providing health care. In the 1930's it was deemed a waste of money to provide services to a people who, having received them, would just return to the bush. Instead, the government acknowledged its responsibilities to the Crees by intervening, for the first time, to

protect the Crees' interest in the fur-trade. It established game laws restricting the incursions of whites into the area to hunt and trap. And conservation measures, to be managed by the Crees, were designed to expedite an increase in game. Limited supplies of relief were sent by the government for distribution by the HBC to the most needy. In order that the people not spend too long at the posts away from their traplines the HBC at this time also provided some relief. The intention was to provide enough emergency supplies to keep the Indians on the land so that the Company would receive its furs and the people not demand services:

> They pursued the view that the Indians should be encouraged to maintain the traditional way of life, otherwise they would demand schools, medical care and services which would require funds.
> (Jenness 1964:30)

At this juncture certain Cree, HBC and government interests overlapped allowing the Crees autonomy in game management and yielding an improved cash return (Feit 1980) but completely ignoring the state of health of the people. Also, while these measures restored the economy in the short turn, no effort was taken to ensure the survival of the communities in the long term. Fur prices were low, the profits were being completely drained out of the communities and many Crees were very ill. Yet at the time when the native economy was suffering the ill-effects of total dependence on a single resource no thought was given to why relief was needed in the first place.

Development and Health Care, 1945-1970

The 25 years following the end of World War II witnessed major transformations in Cree relations with capital and with the government. In the memory of the people these were the 'dreadful decades' punctuated by a

litany of epidemics and the T.B. evacuations. The combined effect of the disease and the starvation of the 1930's, 1940's and 1950's had been devastating. Infant mortality was yet again high, and life expectancy was shorter than in the south. According to church records T.B. was the most persistent cause of death at the time.[2] The population was also severely weakened by epidemics of influenza and measles (Desy 1968). Colds, bronchitis and other respiratory disorders were chronic.

Reports of the terrible conditions had been coming out of the north since the early 1930's but it was not until the late 1940's that the government decided to take action. The impetus to move came from two sources. Appalled by the high rates of death in the north, public opinion in the south had compelled the government to do something. A greater sense of responsibility had been forced on the government by the people who were in a rebellious mood against the precarious existence that they had endured during the Depression. Now both the working and middle classes had decided that their years of toil for Canada during the war was justified only if its benefits were available to all Canadians (Taylor 1978). The result was the expansion of the welfare role of the state into all the social services including medicine (Offe 1975). The second came from pressures by the HBC due to the recovery of the fur market after the war. The upshot of this for the Crees was the initiation by the government of a campaign against T.B. and a welfare programme to assist those in need.

Catalyzed by the goal of eradicating T.B. the nursing station programme, a concept based on the Prairie Rural Health Centres, was established. Because of the extent of T.B. and infectious disease it was evident that health services would have to be extended to the most remote villages.

In 1948 a hospital was constructed at Moose Factory to serve the James Bay population. In addition, the hospital ships, the Nascopie and the C.D. Howe, equipped with X-ray machines, patrolled the coasts in search of people with T.B., evacuating those with the dreaded disease, often with horrible consequences both to the patient and to those s/he left behind.

The changing economic profile across the north from the 1950's on precipitated an intensification of the intrusion by government into the lives of the Crees. During this period merchant capital was replaced in importance by industrial capital as mines and lumbering moved into the southern party of the territory. As just stated, the end of the war had been marked by an increase in fur prices buoying the vitality of the trade but the trade in furs in no way approximated the importance attached to the mining industry. Transformations had been introduced by the Crees into the organization of fur production. Preferring life on the land the people used transfer payments and casual labour to subsidize the subsistence sector, investing in better hunting equipment, boats and motors. Some began to fly into their traplines. The result was a mixed economy of hunting and trapping, casual labour and welfare. Nonetheless, despite the efforts of the Crees to rationalize their economy Cree communities declined into a position of irrelevence.

Their problems were exacerbated by the fact that for the first time government intervention directly interfered with the desire of the Cree to sustain the hunting and trapping sector. Aboriginal rights to hunt were denied them as the game laws, which had been established in the 1930's to protect the subsistence sector, were amended in favour of the sports hunters who had been drawn into the southern part of the regions because of the roads, railways, mines and lumbering. The sports hunter posed a

serious threat to the subsistence sector claiming about one-third as many moose as the Crees did (Feit 1980). Game wardens were also introduced removing Cree control over game management. Since the wardens enforced regulations with which the Crees did not always concur their presence forced the Crees to stop hunting in certain areas (Ibid.). All these directly impinged on the autonomy of the Crees circumscribing their control over the bush economy.

Instituted without consultation with native people the changes reflected the State's renewed interest in the global transformation of northern native people. With the work force being, for the most part, imported from the south, industry required that the Crees be separated from their land, rather than from their labour as had occurred in development projects elsewhere in the world. Native people were wanted off the land because once centralized in villages they would be more easily administered and the expansion of capital could proceed unimpeded. In order to encourage sedentarization the Indian Act was amended with stipulations requiring that all native children attend school. The presence of the nursing stations in the communities also contributed to the rapid growth of the settlements.

Despite industrial development, which in any case had been confined to the southern part of the region, and despite attempts at sedentarization, the Crees remained committed to the hunting and trapping way of life. The pattern of colonization had ensured that there were no viable alternatives. In addition, the Crees wished to maintain their way of life on the land for it provided them with much of their food, a certain amount of independence, and a powerful sense of identity (Tanner 1979:xii). From it most Cree values are still derived today.

The Cree economy was sent into a tailspin with the drop in the fur prices in the 1960's. Still the people struggled to sustain the subsistence sector. The period of summer employment was extended but in many cases the lack of employment and the high costs of hunting drove many Crees out of the native economy. Unemployment was high and the little which was available was limited to seasonal, short jobs. No Crees owned their own buinesses and except for the HBC there were few other employers in the settlements. The prohibitive costs of hunting in concert with the low price of furs and the compulsory school attendance forced the people to spend more time in the settlements.

At this time the physical survival of the communities depended heavily on the transfer payments and services provided by the government:

> The level of dependence on aid has no parallel in the history of colonialism in Africa, Asia or Latin America and is only possible because native people represent a colonized minority within one of the richest countries in the world. . . . It is necessary because the long history of exploitation of native people by external capital has created a situation in which such payments are required for the very physical survival of the communities.
> (Loxley 1980:15)

People depended almost entirely for physical support, for money and shelter on the federal government. Houses were built by the government but their construction reflected little awareness of conditions in the north. They were poorly insulated, had no basements, no double-paned windows, and no out-door porches to cut out the cold. Besides being very small they were damp and drafty. Sewage and water systems were not built.

The nursing stations, while staffed by conscientious and hard-working nurses were too poorly equipped to cope with the local conditions and the high rate of disease. In addition, health programmes never questioned the cause of the high rate of disease. But predicated on an ideology of

self-sacrifice, the practice of medicine conformed to Cree social relations. Medicine had not yet adopted the highly specialized and hierarchical structure now characteristic of the biomedical system, resembling instead a form of cottage industry. Relations between Crees and medical personnel in the communities were balanced to the extent that both groups depended on each other: the Crees wanted the medicines while the nurses required physical support, that is food and wood. Like the nursing sisters, implicit in their practice of medicine was a high value placed on sharing and cooperation, a willingness to give personal care, to be available around the clock and to nurse the disabled at home. In contrast to the nursing sisters their therapy did not involve prayer but the personal relations established with the people and the emphasis on caring generated a great deal of trust and compassion in the medical encounter.

To their advantage, with the developments in medicine following the war the federal nurses were armed with more effective medicines than their predecessors. The perceived effectiveness of their drugs is attested to by the fact that during this time there was a major incorporation of biomedicine into the Cree pharmacopoeia. People continued to use some Cree medicines but for those who remained in the settlements these were difficult to obtain. The use of the biomedicines should not, however, be interpreted as indicative that biomedical ideas had replaced the Cree medical system. On the contrary, for in the medical encounter with the nurses, good care was equated by the Crees with a willingness to help the patient rather than with a transmission of detailed medical information.

In short, although the Crees were dependent for health care on the federal medical personnel, relations in the medical encounter, because of the structure of medicine at the time and the circumstances of providing

medicine in isolated conditions where the survival of the practitioners depended on aid from the Crees, were less hierarchical than they were to be a few years later. On a theoretical level, inequality and domination were manifested in the biomedical definitions of health and disease which did not question the cause of disease, in the absence of a preventative health infrastructure (sewage and water) and in the limited health service available. But in day to day life, the nurses themselves were loved and admired for their personal commitment to the people, for their skills and for the care they provided.

Development and Health Care, 1970-1975

By the 1970's a new player had entered the field. Fuelled by a strong resentment of the degree to which the English controlled Quebec it was a period of fervent provincial nationalism in Quebec. Quebec politicians, simultaneously struck by the exclusive hold of the English over northern Quebec and the potential wealth of the area were now interested in integrating native people. When northern Quebec had first been incorporated into Quebec by the Boundaries Act of 1912, Quebec had not wanted the expense of administering native people. The federal government remained the sole government providing services. In an attempt to extend its sovereignty Quebec began to establish an infrastructure of its own in the settlements. A hospital was built at Fort George, schools were built, the nursing stations were staffed by provincial nurses and representatives of provincial agencies visited the communities.

Then in 1971 Quebec announced the construction of the largest hydroelectric project in the world in James Bay. With unemployment in southern Quebec endemically high, with a desire for economic independence from the rest of Canada, and with the impending energy crisis, native rights to

this land were completely ignored (Norbert 1978:30). The federal government did not oppose the provincial government by supporting native people for fear of attenuating their already tenuous relations with Quebec. For the first time in their relationship with the State the Cree launched an organized, regional bid to fight back. Through court action they attempted to terminate the project. In 1973 the Malouf Report granted an injunction in the Crees' favour stipulating that all work be stopped. Within a week however the province had taken the case to the Court of Appeal where the earlier judicial arguments and conclusions were proven insufficient and were overruled. For Quebec the central issue was then to abrogate aboriginal rights as quickly as possible in order to avoid future delays in the work. By virtue of the fact that they could instigate costly interruptions in this and other similar projects the Crees had some bargaining power in the negotiations which ensued.

A settlement followed, known as the JB & NQA, in which the territorial rights of the Crees and Inuit were extinguished in return for certain rights and services. The Agreement, the first comprehensive aboriginal treaty in Canada, represents an internal development strategy which emphasized the importance to the Crees of a viable subsistence sector and the maintenance of Cree culture. To expedite this, provisions were entrenched for the creation of independent Cree-controlled structures which would manage hunting and trapping and which would assure Cree hunters and trappers a guaranteed annual income for each day spent on the land. This aspect of the Agreement represents a victory for the Crees for it protects and finances their way of life - a way of life which the government had formerly been committed to tranforming. The right to assume a greater decision-making role in their interactions with the government was also acknowledged

by the establishment of Cree-managed structures dealing with health, education and social services. The latter are not independent but like social services elsewhere in the province are fully integrated into the provincial infrastructure. In the case of health, the services are fully integrated into the provincial biomedical system. The JB & NQA represents a break with the pre-existing relations with the government in which policies were unilaterally imposed from without.

With the signing of the JB & NQA, Cree health is now administered by the Crees through a regional council, the Cree Board of Health and Social Services, as established under Chapter 48 of Quebec Law. The regional council is in theory the health 'policy-maker'. In the meantime the federal Department of National Health and Welfare has been withdrawing from a direct role in the provision of health services. The financing for the regional council is under the umbrella of three government bureaucracies: the federal Department of Indian Affairs and Northern Development, and National Health and Welfare and the provincial ministère des Affaires sociales. Needless to say, as we shall see health budgets are neither large nor thorough enough to provide adequate care. Moreover, the degree to which Crees have actual policy leverage, is open to debate. For instance, should their performance be deemed unsatisfactory the Quebec government has the right under the law to assume administrative control of the 'delinquent' institution. Not only that but since the medical profession claims absolute authority over the contents of its own work I question the extent to which the executors of policy - that is the health providers - will be amenable to Cree interventions.

Development and Health Care since 1975

To illustrate the current state of health services available to the Crees I will focus on the situation in Mistassini but will draw examples from all the communities. I have chosen Mistassini rather than Chisasibi, the other community where fieldwork was conducted, because in accordance with the terms of the JB & NQA the latter has recently been moved to a new site with new housing, and water and sewage facilities. Conditions there are not representative of the other Cree settlements.

With a population of about 2,000 Mistassini is the largest of the Cree communities. The community is primarily bush oriented with 59% of the people being beneficiaries of the Income Security Programme, the guaranteed annual income for hunters.[3] For the Crees in Mistassini, as elsewhere in James Bay, the annual cycle of hunting and trapping follows a rhythm which is fairly consistent from year to year. Except for the modification of plans to incorporate the migration patterns of animals and birds, the availability of transport, and freeze-up and break-up, people leave their communities in mid-September and do not return until after break-up in the spring. Some return to the settlement at Christmas to collect their Income Security cheques and purchase supplies but those with traplines far from the community find the cost of the mid-winter trip prohibitively high and stay in the bush.

Those who do not go into the bush either attend school or seek employment in the few local enterprises. Figure I compares the bush going population to the settlement living population. Unemployment and under-employment is chronic in the villages. The majority of jobs for men are either seasonal and/or take them away from their villages. Contrary to expectations the James Bay Power Project has provided little opportunity

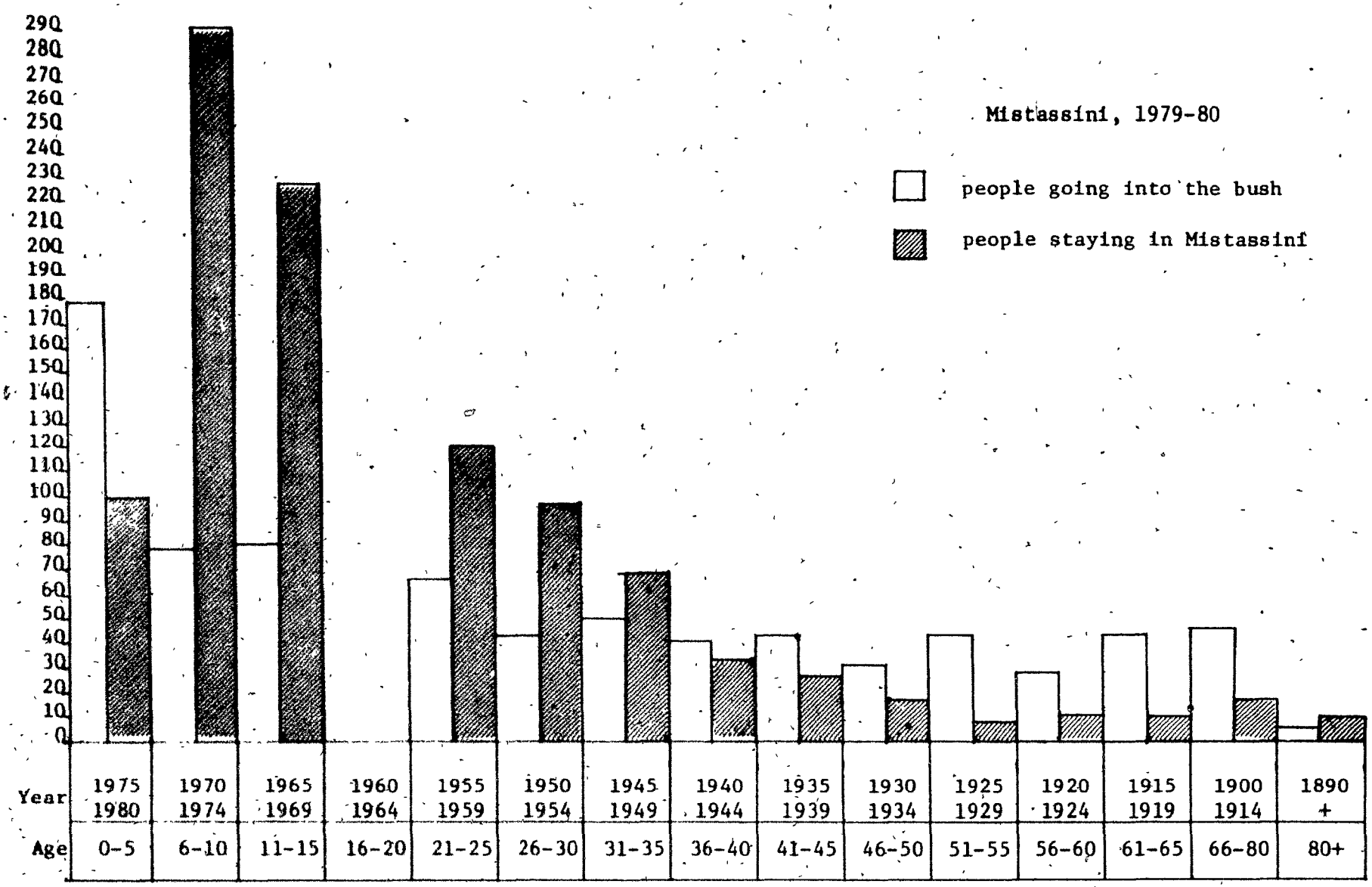

Figure I: Number of People Going into the Bush Compared to the Number Staying in Mistassini

for employment as the people neither speak French nor have sufficient skills or experience. While many women express the need to work to supplement the low family income their rate of unemployment is even worse. In Mistassini for instance only about 30 women have jobs. In order to augment the family income women board the school-aged children of the people in the bush. Again in Mistassini, in 1979-80 about 200 children were distributed among 100 foster homes averaging about two children under the care of each foster mother.[4] In many cases the monthly cash payment per foster child and the gifts of bush food from the parents of the children in the bush represent a substantial portion of the income of the family.

Living conditions in the settlements expose the Crees to a wide range of parasitic, viral and bacterial infection. According to the study conducted after the 1980 diarrhea epidemic in the James Bay Cree and Inuit villages, the source of water in Nemiska was contaminated. In Rupert House the water was clean at source but found to be contaminated in the homes as a result of hand distribution and storage. In addition, because of poor drainage, raw sewage filled the ditches where the children played. The study reports that in Mistassini all but twenty houses are linked to water and sewage systems but breaks in the system will leave houses without running water for months (Pekeles 1981). Here the sewage system, originally constructed for 25 houses now services 235, leading to blockages and backflow in the system. Money that was originally intended for the construction of new sewage facilities in Mistassini has been rechanneled to Rupert House where the problems with sewage are even worse.[5]

Housing also constitutes a serious problem in Mistassini where the population is divided among 235 houses, - about 8 people per house. 72% of

the houses were built in the late 1960's by the federal government with little concern for conditions in the north, and, as stated earlier, they are small, over-crowded and in dire need of repair. Because the crowded conditions place a strain on the people, young families in the fall often move temporarily into the houses vacated by the families who have gone into the bush. In the spring when the families return the predicament reemerges as their 'tenants' must once again seek living quarters.

Although epidemiological studies have not examined the health status of the Cree population the morbidity and mortality profile and the periods of hospitalization are said by health workers to exceed that of the majority of Quebecers. For instance, 23.5% of the admissions at the Chibougamau hospital were Cree, even though the Crees constitute only 11% of the total population served by the hospital. Moreover, over 50% of the children in the pediatrics ward of the same hospital were Cree (Richardson 1981). A cumulative record of the use by the Crees of medical services was begun in 1981, not long enough to be conclusive about the incidence of disease, but the data appear to conform with figures of disease among the Inuit of northern Quebec as compiled between 1974-1978. According to these statistics the rate of mortality was 46.8 per 1,000 live births compared to 13.3 per 1,000 live births in the Quebec population as a whole (Labbé 1981). Infectious diseases were the greatest cause of native infant death, particularly pneumonia and meningitis (Duval and Therrien 1982). In the rest of the Quebec population infectious disease as a cause of death is only marginal (Labbé 1981).

The most frequent reason for visits to the hospital or nursing station was also infectious disease. 57.4% were for upper-respiratory tract disorders (and 45% of these were pneumonia), 23.7% from skin infections,

and 15.4% were urinary tract diseases (Labbé-1981). The Methyl Mercury Study Group, in their 1978 examination of Cree children between the ages of one and two-and-a-half years, reports that 22.1% of the children suffered from otitis media (Anonymous 1979). Most of the children have colds or running noses all the time. In addition Cree villages have an increase in gastroenteritis in the spring and the summer. In several of the villages during the spring and summer of 1980 a majority of the children were ill with it. As a result at least 80 children (from Cree and Inuit villages combined) had to be hospitalized and almost one-half of these had to be transferred to hospitals in the south for more specialized care. Seven children died (4 Cree, 3 Inuit) (Pekeles 1981).

The federal government has policies concerning native health stating that their general objective is to assist Indians in attaining a level of health comparable to that of other Canadians. To expedite this it claims that it operates on all reserves (1) public health programmes which include prevention and counselling, (2) a health education programme, and (3) medical and dental treatment services. Entrenching the federal policy are the statutory obligations in Section 14 of the JB & NQA concerning Cree health and social services which state that Quebec will provide the Crees with the funding to 'support the services which are not included in provincial programmes for the general public but which are provided to native people by the Department of National Health and Welfare' (Quebec 1976:Section 14.0.22).

Despite this, the disease burden in the Cree communities is dealt with by a three tiered health infrastructure which focuses almost exclusively on the clinical aspects of sickness. Each community has a nursing station, Nemaska receiving one only after the 1980 epidemic of gastroenteritis in

which two Nemaska children died (Pekeles 1981). There are no regularly scheduled doctors' visits, nor regularly scheduled visits by specialists, and no service to quickly evacuate emergencies from the communities. Interviews with the nurses revealed that their employment did not require that they have any previous nursing experience even though they are responsible for the health care in villages where the rate of illness is appallingly high. A knowledge of English was not a prerequisite even though it is the second language of the Crees. And in spite of the nature of the health problems which impinge on the communities their employment did not require a background in public health or community medicine.

Patients with symptoms beyond the expertise of the nursing station personnel are referred to the nearest hospital, the coastal Crees being sent to Moose Factory or Chisasibi, and the inland Crees to Chibougamau with tertiary referrals in pediatrics to Montreal. Organizing the health services at the regional level is the Département de Santé Communautaire (DSC) at the Montreal General Hospital. The function of the DSC is threefold: it is to coordinate tertiary level care, to arrange visits by specialists and dentists to the communities, and to provide community health services. Perceived as a backup service, communication between it and the local level nurses and secondary care doctors has not been consistent (Pekeles 1981). With attenuated links between the community health sector and the curative, prevention and health education are almost nonexistent.

In Mistassini there is no biomedical service on the weekend whatsoever. In the event of sickness or an accident the patient must first track down a ride and then submit him/herself to the long trip over the gravel road to Chibougamau. Emergency treatment in the bush also involves a circuituous route. The recent dispensation of radios to people in the bush

provided them with the means to call for help but the calls do not go directly to anyone with the authority to send help. In Mistassini the calls are picked up at the store which is just open during regular store hours. The information is passed on to a band councillor who informs the nurses. They in turn must consult with a doctor at the Chibougamau hospital who decides whether to send a plane for the sick person. Often additional calls must be made to the person in the bush to more fully assess the condition of the sick person. Needless to say a couple of days may pass before help is sent to the person.

In short very few of the government policies have been implemented. Recent events have indicated that the JB & NQA is no guarantee that the budget to adequately finance the necessary health infrastructure, including housing, water and sewage facilities will automatically be provided. And ambiguity in the wording has furnished the government with loopholes should its reticence be challenged. The upshot is that the Crees must rely on negotiations and lobbying with the federal and provincial governments to secure the funding to redress the gaps in health resources. Playing with the federal government's awareness that failure to live up to the terms and spirit of the JB & NQA would impede its settlements with other native groups, the leadership was recently successful in obtaining thirty-two million dollars from them for health and social services. As stated in the introductory remarks of this chapter, relations with the state and the distribution of biomedical services are not determined solely by ownership of production. With the Crees, their position as derived from the relations of production are bolstered by their propensity to manipulate politics. Regarding health care, however, their efforts have yet to meet with success with the provincial government.

I will now proceed with a discussion of the internal dynamics of the two medical systems in the Cree communities. Beginning with the Cree medical system, the focus is on concepts of disease and the relations between healers and patients in the medical encounter.

FOOTNOTES

[1]The success of the Crees in certain negotiations should not obscure the inequality in the distribution of power, prestige and resources - an inequality which places Crees, along with the other native groups in Canada, at the bottom of every scale in Canada.

[2]Anglican Church records, Births and Deaths Registry, Mistassini.

[3]These figures are calculated from the 1980-81 Income Security Programme data for Mistassini.

[4]These figures are derived from Cree School Board figures for Mistassini, 1979-80.

[5]Since the report by Pekeles (1981) the federal government has awarded the Crees thirty-two million dollars to improve health conditions in the settlements. The sum, unfortunately, is insufficient for the task and is being channelled into housing and improving the water system. Sewage treatment continues to be a problem.

CHAPTER III

THE CREE MEDICAL SYSTEM

Introduction

Concepts of disease and the healer/patient relationship are the result of historically specific conditions rather than the direct consequence of pathological entities or beliefs of obscure origins (Sohesi 1981). My examination of concepts of disease and the relations in medicine will pivot around two central propositions. The first is concerned with the relationship between medical systems and the social formation from which they are derived. The proposition is that medical systems are linked to social formation through common social relations and a shared ideology which structure both the social relations in medicine and the definitions of health and disease. This proposition posits that although the domestic mode of production is dependent on the capitalist mode, the continued vitality of the former, with its distinctly Cree relations and ideology, may continue to structure the medical system of the Crees committed to the subsistence sector and Crees involved in wage labour.

The second hypothesis maintains that although medical systems are linked to social formation through social relations and ideology these links do not exhaust the relations and meaning in medicine. Rather, they provide a backdrop, a context for a culturally specific medical logic. The argument is that not all of cultural production can be reduced to reflections of the larger context. Instead medical systems must be

considered in their specificity. Specificity in this thesis refers to a dual modality consisting of the historically determined relations and ideology of social formation in concert with the particular temporality and processes of meaning construction (Lovell 1980:235). The point here then is to define, within the context of the historical matrix, the temporality of the popular medical system, and the logic which produces the codes of disease.

The Crees have long had a medical system through which they have labelled, diagnosed and treated disease. Of the treatment of illness Speck (1977) writes that a compendium of herbal cures was insignificant to the people of the Quebec-Labrador peninsula because there were few sources of plant life and because their ostensibly stronger development of magical theory attributed disease, accidents, and starvation to the agency of alien and hostile spirits. He relegates curing to the province of the conjurer who, through the manipulation of magic and symbols, restored the harmony between the patient and the spirit world and in the process effected a cure. More recent work, however, attests to the existence of an extensive pharmacopoeia (Blacksmith 1981) complementing a well-developed system of medical ideas and practices (Marshall 1979).

Preventative measures constitute the backbone of the Cree medical system, for good health is thought to be something one has to diligently strive to attain. In the past most illnesses were attributed to natural causes such as cold, exhaustion, or lack of food and were cured by natural medicines (Marshall 1979; Lacasse 1982). Their cure was considered the jurisdiction of the older women in the camp. Illnesses which would not respond to the ministrations of the natural remedies were ascribed to the workings of sorcery and required the intervention of the shaman. In

addition, since the arrival of Christian missionaries in the late 19th century, regardless of whether disease was thought to have been naturally or otherwise caused, treatment has been associated with a deep conviction that God plays a major role in effecting a cure.

I will now subject the Cree medical system to the two propositions outlined above.

Social Formation and the Cree Medical System

Relations and Ideology of the Cree Social Formation

I begin with the first proposition that concepts of disease and relations in medicine are linked to social formation through common social relations and a shared ideology. Regarding the Crees this implies that relations and ideology from the domestic mode should constitute a key organizing role in the Cree medical system. I support the argument for the dominance of the domestic mode on the basis of evidence presented in the Introduction about the manner in which the material, emotional, ideological and political links to the domestic mode have been strengthened by the JB & NQA and on the basis of the attenuated links between the Crees and the capitalist mode of production. Propelled by the notion that social formation cannot be explained in a straight-forward materialist sense, that it may be informed by culturally structured ideological relations, my data indicate that even amongst those not involved in subsistence production, medical beliefs and practices appear to be shaped by the relations and ideology of the domestic mode. It should be mentioned that just over half of the Cree households are intensively involved in domestic production (Scott 1982).

The domestic mode of production among the Cree is shaped by an egalitarian ideology and egalitarian relations in which the dominant relations are sharing and cooperation, and self-reliance and individual competence. The relations and ideology are manifested in the following manner. Domestic production is characterized by patterns of cooperation and coresidency in which groups of on the average three families winter together. Hunters work individually or in pairs to trap beaver and to hunt small game. Larger teams cooperate to kill moose and caribou. Goose hunting, the major source of subsistence food for the coastal peoples, also requires a great deal of cooperation and coordination if a successful hunt is to be achieved (Scott 1982:52).

While groups in the bush consist of a number of families living and hunting together, each household must possess the tools and skills necessary for living in the bush. For each household is the principal producer of its product as well as

> . . . the principal consumer of its product, and is the unit which distributes through a more extended network of kin, friends and community.
> (Scott 1982:57)

Individual hunters are the owners of what they hunt but care is taken to ensure that the opportunities for hunting are distributed equally. In addition, sharing practises guarantee that equal hunting success will not lead to inequalities at the level of consumption, either within co-residential groups or between neighbouring groups.

The egalitarian relations and ideology of the domestic mode extend beyond hunters to wage earners. Cree

> . . . hunting households routinely generate subsistence surpluses during the fall and spring goose hunts and the winter hunting and trapping season. A major portion of this surplus is circulated informally through a network of kin and community.
> (Scott 1982:60)

According to the work done by Feit (1978:677) among the Cree in Waswanipi, the net balance of the exchanges of meat represents an outflow of 37% of the bush foods produced by the hunting families - the net flow going principally to the nonhunting families. Moreover, in the case of moose, the single most highly valued food, there is an explicit rule stating that half of each animal harvested should be given away (Feit 1978: 699). Nonhunting families, in turn, reciprocate with gifts of purchased goods or cash for although they are in a position to buy foods imported from the south, there is a preference for food from the bush:

> People regularly go to welcome new arrivals from the bush and these initial visits involve an exchange of food. The people in the settlement bring purchased items to the people who have just arrived that they think they will need, lard, flour, tea, tobacco.
> (Feit 1978:676)

Larger items, such as canoes, motors, ski doos and trucks are also often given by the settlement families in return for the bush food which they have received.

Social Formation and Relations in the Cree Medical System

The same relations of self-reliance and individual competence and sharing and cooperation are also prevalent in the Cree medical system. It is true that similar relations and ideology may be present in other medical systems, including in the biomedical system. The difference is that in the case of the Crees, these relations parallel the dominant relations and ideology espoused by the domestic mode of production. The primacy attributed these qualities by the Cree domestic mode of production is not given in the same way, to the same degree and for the same reasons in the capitalist mode of production or in the biomedical system.

The Crees inhabit a social universe where controlled and capable action is highly valued and learned early, and where there is little tolerance for behavior which is poorly controlled or inept. The highly contingent nature of bush life, where unexpected events are both frequent and potentially dangerous, is coped with in terms of the individual's technical and physical competence. The mental competence which is encouraged is also of extreme importance. Because Crees see phenomena not as something objective and self-contained, but more in the context of its human significance, they are taught to appreciate the consequences of not doing something the correct way. Emphasis is placed on being able to respond to immediate needs, while incompetence is deplored (Preston 1975: 1971-183). The importance of self-reliance and individual competence to those Crees who spend a large amount of time in small isolated hunting groups is hence self-explanatory.

To equip themselves for bush life then, Crees acquired skills in the myriad of activities, a basic knowledge of medicine being just one of the many. Most of the people developed at least a rudimentary knowledge of the Cree medical system, while some became highly skilled:

> Everybody learned something about our medicines. You had to be prepared because you didn't know when something might happen. It could even happen to you.
> (Interview 35)

> In the past everybody learned the medicines and everyone passed the knowledge on to their children or to whoever was interested. Medicine was one of the things you had to know about in order to take care of your family, and in order to live a long life. You wanted to be able to take care of your children so you learned these things.
> (Interview 2)

In keeping with the necessity of being able to respond to the demands of the moment many consciously developed a special attitude for dealing with

sickness and accidents:

> I did my best to teach myself how to keep my head when there were problems. One of the things I would do is think about the different kinds of sicknesses and what I should do if they happened. I would then tell myself that if I wanted to be of use I would have to stay calm. I would have to concentrate and not be afraid. I went over these things in my mind time and time again.
> (Interview 14)

In the Cree world prestige and status is accorded people who possess the skills to be self-reliant regardless of whether they are primarily bush or settlement oriented. Crees, in general, aspire to have the knowledge and competence which renders them independent and self-reliant. So too in the area of childcare and in the domain of children's illnesses. In the popular medical system the concern with self-reliance and individual competence is manifested in the following manner.

Because children are the responsibility of the mother, their state of health is often interpreted as a reflection of the kind of care given them by their mother. A woman's reputation as a good mother is hence directly tied up with how well she takes care of her children. Needless-to-say, the more competent a woman is in dealing with her children's diseases the more she is deemed a better mother. Furthermore, once sick, it is considered the responsibility of the mother to help their infants get better - others may be asked to determine what is wrong or what should be done, but the mother is said to be the one who should attend to the child (Marshall 1979).

Except with the disorders of little babies <u>all</u> the respondents, that is bush and settlement mothers alike, profess that they prefer to treat most of the illnesses of their children themselves. Their first response, they say, if the symptoms are familiar to them and if they think

they have the skills to deal with them, is to attend to the child themselves seeking aid only in the event that they do not know what to do:

> I don't go the nurse very often because I would rather look after most of my children's problems myself. If I don't know what is wrong I bring them to find out and the next time it happens I know what to do.
>
> (Interview 4)

> The time my baby was totally sick with diarrhea I had no idea what to do. My husband didn't know what to do either. I only learned what I should have done after I had forced the doctor to explain things to me. As soon as I had been told how to look after my baby I took him out of the hospital because I preferred to look after him myself.
>
> (Interview 93)

> I don't like to go to the nursing station for every little thing. I like to look after their sicknesses myself. I only go when I think that I don't know what to do. I've had to bring my children quite a few times because there are so many sicknesses in the village now. I don't know much about a lot of the new ones.
>
> (Interview 44)

> We take colds, diarrhea and fever very seriously here, but these are sicknesses which we could probably look after ourselves if the doctors and the nurses would just give us enough information. Those sicknesses shouldn't be too hard to look after ourselves and the people would prefer to be able to do it themselves. The mothers want to be the one to look after their own children.
>
> (Interview 79)

> I don't usually bring my children to the hospital every time they are sick. They get colds more than anything else and I can look after them myself. At the hospital they will only tell me what I already know: they will tell me to give them asparin and fruit juice. The only time I go is when my children are really sick with something I haven't seen before. So if it's not very bad I try to do something about it myself but when the sickness seems very painful I then take the children to the hospital. They have stronger medicines there than I do.
>
> (Interview 7)

> Before going to the nurse I thought that I would fix the problem myself. Then someone told me that if I didn't tell the nurse right away my child could go deaf in that ear.
>
> (Interview 5)

> I don't want someone watching over me everytime there is something wrong with my children. I don't need the doctor for everything, just for the things which I don't know about.
>
> (Interview 9)

> I never go for things which I can cure myself. They will only tell me what I already know and I don't feel like going all that way for nothing. But I can't stand to see my children suffering so if my way doesn't seem to work I bring them right away.
>
> (Interview 28)

> I prefer to help my children myself. I only want to go to the nurse when there is something really wrong with them.
>
> (Interview 88)

> I don't go to the nurse very often because I like to look after most of their problems myself. I only go if I don't know what is wrong, like if I have tried everything and the baby still won't stop crying.
>
> (Interview 73)

Fostering the quest for self-reliance and autonomy in medical matters is the fact that Crees do not impose any restrictions on who has the right to medical knowledge. It is available to anyone who is interested in asking:

> Anyone who was interested could learn about curing people. All you have to do if you are interested is to ask one of the older ladies, or you can learn by watching. No one taught me. I learned from experience because every time anyone needed help I would try to help them.
>
> (Interview 19)

The other ideal characterizing Cree social relations emphasizes relations which are based on sharing and cooperation. Crees see themselves as part of a highly personalized world - personalized in terms of having reciprocal relations with the animal, spiritual and human worlds. There is a consistent, socially shared understanding that the relationship between man and man, like that between man and God and man and animals, is loving. In fact, the relationship between man and God, man and animals,

and man and man is said to be characterized by a reciprocal attitude of love and sharing (Preston 1975:207). Because of these relationships, besides relying on their own technical and psychological competence, Crees may always invoke the aid of a number of sources. This is especially true in the face of sickness.

Relations of sharing and cooperation in the Cree medical system range from the highly spiritual to the practical. For most Crees, the burdens of daily life are mitigated by the profound belief that, in return for their faith, the Christian God is looking after them. The relationship is a straight forward one in which Crees pledge their love and devotion and are rewarded by the promise of unfailing support. In the healing process, for instance:

> When my children are sick I remind them that God is the strongest and that He will help them. I tell them not to worry because if you love God and if God wants to look after them, the only thing they can get that God can not help them get over is death.
>
> (Interview 8)

In the hearts and minds of Crees, because God is omnipotent, omniscient and infallible (Preston 1975) all the knowledge in the world - all the technical and psychological competence - will amount to nought without the cooperation of God.

> When my children are sick or have had an accident I keep calm while I am attending to them until I find something which works. It is important that you always use your head for you never know what will happen to you or to the others. If God wants to look after the sick person then I can help. I don't think of things on earth all the time - I concentrate on the person and pray to God for his help to get things right.
>
> (Interview 19)

Through their faith in God Crees derive the will and encouragement to respond to whatever situation is at hand. Hence, although the responsibility

for the well being of their children is theirs, most of the mothers interviewed say that they do not feel alone. As one young mother in Mistassini said "God will help us do the right thing."

Other outside agencies are also available to the healer. For instance, when natural medicines made from plants and animals are used in healing the healer often sings as she applies the medicines. For just as it is believed that when hunting is accompanied by singing, the songs add power to the ability of the hunter, so too in medicine. Through 'hoping deeply' the singer believes s/he is influencing the medicine to do its work. Through the song the healer, like the hunter, reaffirms her love and respect for the natural world, and, as in her faith in God, her cooperation is rewarded with a cure. In this case, success or cure is owed to the mutual respect expressed between the active partners: the healer and the natural medicines.

The same notion of reciprocal love, but this time between man and man also underlies the praying which anyone can do on behalf of a sick person:

> We like to help people when they are in trouble. Sometimes you need health help, sometimes money help, sometimes other kinds of help. Praying for the person is one way all of us can help the person, and anyone can do that, not just the healer or nurse.
> (Interview 60)

Anointing oil is also often used in combination with the medicines prescribed by the biomedical practitioners:

> Sometimes when the children are sick we put anointing oil on them and pray. With the help of God it can make the medicine work.
> (Interview 84)

> When someone is sick we try and help the person. We say prayers, and sometimes we use anointing oil. We use the anointing oil and say the prayers because they can help the medicine do its work.
> (Interview 77)

As illustrated by Scott (1982) and Feit (1978) each Cree routinely participates in forms of sharing and cooperation with other Crees which extend beyond the interest of the individual and his/her immediate family. The same thing applies to the relations between Crees in the popular medical system.

The notion of sharing is implicit in every interaction between Cree healer and patient in the medical encounter. In the Cree language, for instance, the synonym for healing is helping, so that in the spoken language a midwife is defined as 'someone who helps the baby get born', and a person with a great deal of medical expertize is described as 'someone who helps the sick person get better' (Interview 29). The fit between healing and helping is so tight that it is said that unless helping is the one main objective there is no point in being a healer. Healing, then, is a vocation pursued by those whose primary interest is in helping others.

> Everybody knew something about Cree medicines but some people knew a lot more. The people who learned a lot about medicines did so because they wanted to be able to help. Whenever you asked them they would be right there, trying one thing then another until something worked.
>
> (Interview 11)

> The ones who were really interested in being useful to the people learned all about the medicines. The main thing about them was that they wanted to help. They learned and did what they could because they really cared.
>
> (Interview 83)

> I started thinking about medicines and about the different ways of healing people because I wanted to help people, especially when they could not help themselves.
>
> (Interview 17)

> I wanted to help other people when they were sick because they are a person and I am a person and I can't bear to see them suffering.
>
> (Interview 19)

> The government health services were better when the federal nurses were still here. With those nurses, if you called to say that you were sick, even if it was in the middle of the night, one of them would get out of bed and come to you. The nurses wanted to help then, and they knew how to help. The new nurses (provincial) just want to make money. It seems that it does not matter to them if they do a good job because they know that they have a contract and they will get paid every month. That's not how I look at helping people.
>
> (Interview 47)

The dynamic between autonomy and self-reliance, and sharing and cooperation in the Cree medical system is operationalized in the following way. Within the Cree medical system it is the responsibility of each mother to look after her children when they are ill. But the care of each particular disease episode is the responsibility of the individual mother only in so far as she, the mother, has the necessary knowledge and skills to respond to the presenting symptoms. At the point in each disease episode when the individual mother does not know what should be done, or what is going on, she expects help from someone more medically skilled than she. Within the relations of the Cree domestic mode of production such help is held to be quickly forthcoming. In fact, because people are acutely aware of the consequences of many of the illnesses of children, response for a request for help is immediate.

> When people ask you for things you don't always have to give it to them. You can give somethings and not others. But it is hard to say no when someone is sick - you can not refuse to help them. You shouldn't even wait to see the sick person because they could get worse in the meantime.
>
> (Interview 13)

> Whenever my children were really sick I would call J.M. and she would come immediately. She wouldn't keep me waiting.
>
> (Interview 58)

> When it was known that someone knew a lot about medicines and about helping sick people get better we would always call that person and she would come to us. It is not like that now when the doctors and nurses won't come to your house and when at the clinic they only see you between certain hours.
> (Interview 16)

> One time when I was sick in the settlement one of the older ladies who knew a lot about medicine made me some medicine. I didn't even have to ask her, she just heard that I was sick and she wanted to do something for me. That's how it was when we got sick.
> (Interview 18)

> In the old days the older ladies always made themselves available to tell the sick person what was wrong and to help them. They would always help when they knew that you were in trouble.
> (Interview 15)

> In the bush people didn't get sick very often but when they did you wanted to help them right away because they had to hunt to take care of their families. We did not have time to be sick.
> (Interview 9)

It was usually the grandmother, the oldest woman in the camp, who was the most skilled and experienced healer. Because she spent most of her time in camp, it was she who was on hand to help deliver the babies, and she who would decide how to cure the sicknesses:

> The grandmother was the best because she was old and had seen alot. She was the one who would help us the most.
> (Interview 11)

The competence of the grandmothers is still acknowledged by many of the mothers of the young children, many of whom continue to depend on their advice for treating their childrens' illnesses.

When someone is sick the old grandmother would question the mother about the illness and its symptoms. Before she decides what is to be done, she finds out as much about the disease episode as she can. Depending on what is wrong with the person, she suggests either going to the nursing

station or, if she knows one, she suggests a way the mother could look after the problem herself. Needless-to-say, the Cree healers think it is their duty to do all they can to assist the ailing individual patient, providing constant comfort and attending day and night, if necessary. The relationship thus forged between patient and healer consists of an amalgum of compassion, friendship and trust.

Preston (1975:195) writes, and my interviews substantiate this, that Crees want to survive their full allotment of days and for this they say that they need the complete support of their group, as well as their own individual competence and knowledge, to be able to succeed. It is not unusual for people to accept immediate personal hardship and hazard to assist someone in need. In the past, for instance, if the necessary medical skills were not available in camp it was not unusual for one of the group to volunteer to walk whatever distance was necessary to get medical care. Stories abound among the Cree of Crees who have walked hundreds of miles across the Quebec-Labrador peninsula in search of assistance. In many cases, not wanting to leave the sick person in camp, the person has actually carried the patient over the endless miles for help.

My interviews indicate that the cooperation between Crees in medical matters is freely given, an expression of everyday friendship or kinship. The return for assistance rendered is both informal and not necessarily explicit. It may be conveyed either as a gift or repayment may extend into the other forms of exchange encountered in the relationship of the individuals involved. Perceived as an expression of compassion, generosity, and sharing there is a certain amount of vagueness in the obligation to reciprocate. Hence, while a return of some sort is implicit, it does not have to be material, it can be expressed in terms of respect and prestige.

In birthing, for instance, it was considered an honor to be asked to be a midwife:

> It was a big honor to be asked to help, especially to deliver a baby. The midwife would comb her hair and put on clean clothes out of respect for the woman and new baby. It was a big occasion, like getting dressed up for a wedding. The midwife was really excited to be part of the birth.

As a token of respect and affection for the midwife, the mother often asked the midwife to name the child, a highly valued privilege (Marshall 1979).

In sum, individual competence and self-reliance in the relations of the Cree medical system, as in the relations of the domestic mode, is complimented by close personal relations of sharing between Crees, and the natural, spiritual and human world.

Social Formation and the Meaning of Disease

Although the beliefs about the etiology, labelling and treatment of disease differ across the Arctic and sub-Arctic, at a general level there are widespread similarities of form and function. Amongst the Crees, as amongst other Algonkian and Athabascan groups, disease is usually thought to have an empirical, pharmaceutical and spiritual component. Always empirically grounded, the pharmaceutical and spiritual component varies according to the perceived etiology of the disorder.

According to the Crees, in the bush, sickness is not thought to be a random occurrence, totally uncontrolled and unpredictable. Rather, people are said not to get sick very often because 'they know how to take care of themselves' (Interview 3) and because 'conditions are better there' (Interview 58).

> There is so much more sickness in the settlement. In the bush we keep healthy because we are always moving. We always have camps which are fresh and clean. In the settlement we are not moving so it isn't very clean.
>
> (Interview 10)

> Children are so much healthier in the bush because they only eat bush food. The food is fresher and better for us.
>
> (Interview 5)

> There are fewer diseases in the bush. It is clean and fresh because no one has lived there before. There is more fresh meat and the water is good.
>
> (Interview 43)

Despite the fact that conditions in the bush are considered more conducive to good health, the interviews indicate that Crees do not assume that good health is something one automatically has by virtue of residency in the bush alone.

> In my parents' time it was really difficult to keep healthy. Then only the great hunters had enough clothes and were warm. Many of the people were poor because hunting was not very good then - some people died from starvation and the poor hunters got more sicknesses than the others.
>
> (Interview 8)

Even when game is more plentiful Crees still say that one should not take staying healthy for granted:

> We have to fight for our health. This means that we must make an effort in order to stay healthy. We should do certain things and follow the advice for staying strong.
>
> (Interview 6)

The advice for the prevention of disease can be discussed in terms of the different categories into which Crees classify ailments and illnesses. At this stage of the research it appears that Crees divide physical disorders into two major groups, personalistic[1] and naturalistic[2] diseases, the distinction being made on the basis of the perceived etiology of

the disease.

Whether dealing with personalistic or naturalistic disorders, the relations and ideology of sharing and cooperation, and self-reliance and autonomy are expressed in Crees concepts of health and disease - concepts in which health is represented by Crees as being both socially and individually produced. The notion of health being socially and individually produced is directly linked to the relations and ideology of the Cree domestic mode of production. To the Crees, health is individually produced in the sense that the knowledge and actions of the individual is thought to have a major impact on health. At the same time, health is said to be socially produced because of the role the group plays, either through sharing and cooperation or other activities, in health prevention and maintenance. Important in the Crees' discussion about the social aspects of health is the relationship between the group and environmental conditions.

Diseases of Personalistic Origin

Amongst northern Athabascans and Algonkians, in those instances where disease is considered personalistic in origin, the concept of power is a fundamental ingredient in the interpretation of disease. Power is a quality which has a bearing on many of the components of social formation of sub-Arctic hunters and trappers. In the Quebec-Labrador peninsula for instance, a hunter's skill is said to be as much the result of the hunter's technical competence as it is the hunter's mental and spiritual capacities. Well developed spiritual skills allow the hunter to develop relationships with the animal world such that the animals willingly offer themselves to him to be killed. It is said that only those who develop this special relationship will become good hunters. The greatest hunters were hence held to have a great deal of power because they had the ability to

communicate with, predict and manipulate the animal world. All this activity was conducted on the understanding that the reciprocity between man and animal be observed - that each respectfully observe certain rules and regulations towards the other. This power concept is also manifested in the medical system by the ability, through strength of mind to control events in the physical world.

Initially, anthropology treated all medical concepts among native groups as if they were synonymous with power and with supernatural intervention. In the process, medical systems were simultaneously perceived as instruments of social control and as indistinguishable from religion. The personalistic aspect of disease, in the northern literature, was treated first as magic or superstition (Bernard 1867; Jetté 1907, 1911; Clements 1925), then it was given a functional explanation (Densmore 1929; Ritzenthaler 1945; Ackernecht 1948; Lantis 1951) in which the 'magical concepts' were related to social organization, civic control and social sanction. Medical beliefs in the case of the functional explanation are presented less as superstition and more as constituting the moral order of acephaleous societies (Marshall 1980:28). Native medical systems, within this framework, thus consider the mind and social order first, and the body only incidentally.

Skilled at manipulating the moral and social fiber, as well as manipulating disease, shamans, witches and sorcerers within this paradigm, were the focus of much of the research in the north which referred to medical systems. Hence, while a number of roles perform medical tasks in northern groups, theoretical orientations implicated shamans as the primary healers in society (Marshall 1980:70-71).

The group of Cree illnesses which most immediately fall within the rubric of personalistically caused disorders are those illnesses which are caused by midéo. Midéo is a person - usually a man but sometimes a woman - who has the power to do good, but who often chooses to use his/her power to harm others instead. The desire to do harm is aroused when midéo is either angry at someone, or is jealous or envious of them. Midéo becomes angry when he is not given what he wants.

> Midéo is like a magic man who knows how to do good or bad things. It sometimes happens that if they are upset about something which you or your family have done they can bother you and make things bad for you. It does not happen every time though. When it does happen you are in trouble.
>
> (Interview 8)

When midéo is angry he attempts to strike at a member of the family which has put him off, in order to bring bad luck to them. The bad luck could manifest itself in the form of physical harm to an individual, it could damage the property of the family, or it could result in a combination of sickness and property damage.

> Midéo sometimes make the people sick, especially when they are mad at them for something, or when they were mad at the person's family, like when they didn't like what they were doing. Then they would make the people sick. They would make anyone sick, it could be the young babies, sometimes the kids and sometimes the older people, anyone.
>
> (Interview 16)

According to one of the respondents, to avoid midéo related problems:

> When we knew that someone was a midéo we would be very kind to that person because we did not want to make him mad. That's hard sometimes because it means that you have to give him whatever he wants. If you don't it could make everyone in the family sick.
>
> (Interview 40)

Crees say that midéos have the power to cause three kinds of sicknesses: accidents, mind sicknesses and body sicknesses. While accidents are usually thought to be the result of carelessness on the part of the individual concerned, some are ascribed to the efforts of midéo. If an accident befell someone for no apparent reason (e.g. the person was normally competent or skilled at the particular task he was doing when the accident happened), it was often attributed to midéo. The kind of mind sickness which is often, but not always, ascribed to midéo is recognized by a combination of symptoms: an inability to sleep, an inability to eat and by headaches. The person experiencing these symptoms is said to be 'out of their mind' (Interview 13). Certain illnesses affecting the body are also thought to have been caused by midéo, namely those disorders which do not go away after being treated with the medication usually thought to be effective for the problem.

> Often you don't know that your problems are caused by midéo until after you have tried the doctor's medicines and found them not to work.
> (Interview 8)

> Someone midéoed my three year old son one time. He was really sick. The nurses tried and they were not able to do anything. He didn't get better when they put him in the hospital either. When they could not figure out what was wrong with him in the hospital I then knew that it was midéo.
> (Interview 32)

Crees say that once you know that midéo is bothering you, you should try to resist him with your own mental abilities:

> The best thing you can do at first when that happens is to try and fight it with your mind. To do this you have to try to put it out of your mind and forget about it if you can. Your mind has to be very strong to do this.
> (Interview 16)

If that doesn't work, a number of routes can be pursued to exorcise the influence of midéo. The first still involves garnering all ones' resources, while the second involves the intervention of outsiders.

> In my case I couldn't put midéo out of my mind. At the same time I did not know who it was who was making me sick. The person then should try to dream about the person who is making him sick. Until you dream of that person you can get very ill. When I dreamed of him I was able to see who he was and fight him off by praying.
>
> (Interview 8)

> I knew who was bothering my little boy. It was an old man who was mad at me because of the way I had done something. Then the only way to help my little boy was to pray so I called the Pentecostals and they came over to help. The next day the baby was fine.
>
> (Interview 32)

Crees say that midéos enjoy less influence now than they did in the past. It will be recalled that some of the midéo caused diseases are disorders which do not respond to the biomedical treatment for the disease. The presence of the biomedical system, with its extensive pharmacopia, has, however, reduced the frequency of illnesses which can not be treated by nonsupernatural intervention. Also:

> In the past midéos were thought to be sacred - some did evil things but many were good. When the people became born again Christians many of the people stopped believing in midéo. They starting to see midéo as only representing something which was bad. There aren't many of them left in the village anymore - probably between five and ten at the most and fewer of the younger people are using their powers. But these powers can still have a strong effect.
>
> (Interview 73)

> People in the village get sick right now mostly from the water and the garbage, not so much from midéo. There is less of that kind of sickness but if you believe in it you can still get so sick from it that you can die.
>
> (Interview 62)

Crees mention other disorders which also have personalistic origins, but which are not caused by midéos. Like midéo caused sicknesses they occur as a result of supernatural intervention but they appear to be related to transgressions of the social order in general rather than to annoying midéo.

> Inside the shaking tent the voices were giving advice about things - about what is right and wrong, about how we should treat each other, about where the animals were and what would happen in the future. The voices also said what would happen if you didn't do these things. If you didn't, you could get bad luck hunting, or you could get sick.
>
> (Interview 2)

> In the old days when the kids were bad, parents would tell them that when they were older either they, or their spouse, or their children could get sick because of them. The kids knew that they could get mental illnesses just from worrying about what could happen to them or to their relatives because of them.
>
> (Interview 8)

In comparison with the beliefs about midéo, however, the people interviewed were less clear about the nature of these disorders; that is about who or what intervenes to cause the problem or how you get rid of it.

> If we're not living the right way, some sicknesses could come from that. I learned this from the church services and from some of the older people. But only the older people really know how this works. Some of the people who have really studied the Bible have their own ideas about how this works, too. The rest of us don't know too much about these kinds of sicknesses anymore.
>
> (Interview 60)

Crees identify both the individual and social components of personalistically caused disorders. The behavior of an individual, a family or a whole group could sufficiently anger the midéo such that he would vent his displeasure on the specific individual, family or group. He could

choose, on the other hand, not to strike the direct source of his anger but rather focus his rage on someone that person cares for, someone who was not implicated in the infraction.

Exorcising the effect of midéo is also an individual or group act. If the person afflicted has the 'power' to 'fight off' midéo himself or herself, the individual can be the source of his own treatment. If they do not possess such mental powers they then must rely on people who do - people who either have great personal powers of their own, or people who through their faith in God can handle the power of midéo.

Naturally Caused Disorders

In addition to disease etiologies which stress interference by the supernatural most Cree define and treat diseases in terms of natural causes and remedies. The assumptions underlying the literature about naturally caused diseases among northern native groups stand in sharp contrast to the assumptions characterizing much of the literature about the disorders of a personalistic origin. In the approach to medical beliefs which focused on the supernatural and social integration aspects of disease concepts, the nonpersonalistic aspects of disease were frequently overlooked. But northern native groups acquired a high level of competence regarding birthing, the treatment of cuts, burns, broken bones, and digestive disorders. Materia medica ranged from surgery to herbal remedies to rules regarding general health behavior and preventative medicine. Groups in Alaska, in particular, were known for their wide range of surgical techniques, including the use of acupuncture.

Compared to the interest in the personalistic etiology of disease, discussions about the attitudes of northern native groups to the naturalistic

concommitants of disease appear relatively late in the anthropological literature. The initial assumption is that native groups are 'utterly ignorant of the true nature of causality' (Veniaminov 1840; Hilger 1936; Peacock 1947; Mills 1961). This attitude is eventually followed by an attempt to differentiate between the supernatural and nonsupernatural components of illness. Still perceiving medical systems as part of the mechanism for maintaining social control, Lantis (1959) and Ritzenthaler (1963) discuss how groups recognize the role of pathogenic agents in effecting naturally caused diseases and deaths. Important to them are activities which are prescribed by the group because of their empirical relationship to health.

The bulk of the work dealing with the natural causation of disease is the by-product of an ecological orientation which argues for the inherent empiricism in northern native medical practise. The contention is that too many rituals and taboos would limit resourcefulness, therefore, northern groups developed medical beliefs which were based on keen observation and experience. In contrast to the opinions of the writers mentioned in the midéo section, it is the efforts of native groups to maximize survival which is central to the understanding of the medical system (Marshall 1980).

According to Crees, most of the illness which they now experience is now naturally caused. The key to its prevention is said to lie in keeping fit, keeping warm, eating properly and living in a clean environment. In response to a question about how to prevent naturally caused disease in children, the respondents said:

> You have to use your head to be sure your children stay healthy. Babies have to be kept clean, warmly dressed and well fed. If you did these things and

> if the baby had been normal when it was born the baby usually stayed healthy.
>
> (Interview 3)

> Indian food is the best. Keeping them clean is also really important otherwise their sores get infected. And baby bottles should also be kept clean. Fresh air is good to make them feel strong.
>
> (Interview 5)

> Keeping them clean and giving them bush food seems to be about the best. We get bush food mostly from our relatives since we do not go into the bush very often.
>
> (Interview 54)

> To keep my children healthy I bundle them up.
>
> (Interview 25)

> People do many things so that their children don't get sick. They try to help them stay strong by being sure they get exercise, by giving them bush food and by keeping them warm. The white food isn't so good either, because if isn't so fresh - it seems old.
>
> (Interview 18)

According to the older people, the main idea underying the various methods for maintaining a good state of health is to keep the blood strong.[3] They assert that the strength of one's blood is both a reflection of, and a determinant of, one's state of health.

> When the blood is right, it makes us right - but if it is too strong, or too weak it is no good. When the blood is right the person is strong and healthy and has less of a chance of getting sick. The blood can be kept strong by eating strong foods and exercise.
>
> (Interview 23)

The exercise which one derives as a result of hard work is recommended to keep the blood strong. Exercise is also recommended as a treatment for some sicknesses because it is said that it makes the blood move faster thereby speeding up the healing process. The older respondents added a note of caution to the idea of exercise, for they said that an excessive

amount can cause the body to become overheated thus precipitating a whole range of other problems. Excessive exercise is also said to overtire the body, thereby, weakening the blood and making the person susceptible to disease.

Eating properly is considered crucial to keeping fit. People do not talk about one food being good or bad for you. Instead, the value of the food is determined by how 'strong' it is considered to be. After eating strong food, it is said that a person can go a long time without feeling hungry: "Strong food gives strength for a long time" (Interview 23). The strength of the food is determined by how fresh it is, and by what animal it comes from.

Wild meat is considered to be the best because it is the most fresh.

> The best time to eat the food is right away as soon as it has been killed. The white food we get isn't good because it is old, it isn't fresh. It would be better if it was fresher.
> (Interview 21)

Some wild meats are thought to be stronger, and similarly, are considered to make people stronger. Beaver, caribou, bear and moose, as opposed to rabbit and fish, are seen as making the blood very strong, and are considered vital components to a good healthy diet (Interview 23).

As many of the naturally caused sicknesses are thought to have been caused by the cold, large emphasis is placed on keeping warm. People are admonished to dress warmly, as well as to observe certain other procedures in order to diminish the possible effects of the cold. For instance, the older people caution that if one has been out in the cold, or if one is overheated or over tired, one should not drink cold water because it will make the blood go bad. And during the long, cold winter nights it is thought to be good practise to take a teaspoon of caribou blood to keep

warm. Caribou blood, described as 'being strong the way drugs are strong' (Interview 47) is said to keep the blood strong and prevent illness.

Certain groups, most notably women who have just given birth and infants, are thought to be the most susceptible to the cold. In the past, before women had their babies in the hospital, it was not considered good for a woman to give birth while travelling, for fear that she or the baby would get sick. If a woman was due to have her baby while the group was changing camp, the men would go ahead to build a shelter and fire for her (Interview 7). After the birth, the woman was kept warm in order to 'sweat out all the impurities which remained from the birth' (Interview 32). For a few weeks following parturition the new mother was encouraged to confine her activities to inside work. This period of warmth and reduced activity was considered crucial to her recovery because it was thought that an infection would develop if the impurities remained.[4] Now that most of the births take place in the hospital where the compulsory period of sweating and warmth has been eliminated, many of the women fear the consequences to their health (Interview 31).

Also, within the framework of naturally caused disorders, Crees acknowledge a relationship between environmental conditions and health. A clean environment, meaning pure water and clean surrounds was and is considered important for the prevention of disease. Crowded living conditions, contaminated water and garbage are all cited as a threat to health.

In the bush Crees carefully seek out a clean water supply, they are highly selective about the quality of meat they eat, and to assure clean surroundings they frequently change camp. Between moves their tents are kept clean by regularly replacing the spruce bough floors. Despite

these efforts in the bush to prevent disease, those whose hunting territories are close to hydro development construction camps or to the sites of industrial development have observed, and are frequently fearful of, the effects of industrial growth on the game they hunt. In their experience, the meat of animals foraging through the refuse dumps associated with these sites has been contaminated, rendering it inedible. For these people good, safe fresh meat is sometimes difficult to procure. Much of the sickness in the communities is related to the lack of cleanliness in the settlements. The garbage, the crowded living conditions, the inadequate water and the sewage facilities are said to be at the root of most of the disease. Beginning with the garbage, Crees say that:

> The garbage probably causes a lot of the sickness in the children. The children like the garbage - it's like their playground. There are no playgrounds around here but there's lots of broken glass, garbage and dog shit. You can't keep the kids away from it.
>
> (Interview 71)

Then people readily cite the endless difficulties they encounter due to the fact that not only is housing limited but it is also often of inferior quality:

> The houses which the federal government first built are not very good. They're damp and they're drafty. Unless you have money to fix them up the kids are always going to be sick in houses like that.
>
> (Interview 93)

> My children were always sick in the settlement. I didn't really know how to stop it. Until we could get our own house we lived with my parents, my brother and sister, and their husband and wife and all our children. We were really crowded. Any time one of the kids got sick, they all caught it. Now that my husband, me and the children have our own house they don't get sick nearly as much.
>
> (Interview 105)

The water in the communities has also provoked a great deal of concern on the part of the residents. Outbreaks of gastroenteritis each spring provoke a great deal of worry as most of the people know of children who have died as a result of it, and most families have had at least one child hospitalized with diarrhea.

> The kids get so sick from the water here, especially in the springtime. Then everything is melting - like the sewage and the garbage gets into the water. Everybody feels bad from the water then but the babies get it the worst. They're too small to be able to fight it. So many of them end up in the hospital.
> (Interview 87)

In the villages where there is no running water people say that they have a hard time preventing disease:

> We don't have running water here. The government never gave us enough money to get it. Without running water I have a hard time keeping my house clean and I can't always keep my kids' sores clean when they get infected. It's hard to keep them healthy when you don't have enough water.
> (Interview 52)

Water is perceived as a year round problem in those communities where there is no running water.

> Water is delivered to all our houses by truck - but you don't get enough to keep your house clean, the clothes clean and yourself clean. We're afraid to drink that water because we're not sure that it is clean. This means that we have to get someone with a car to drive us to the spot where we know that the water is fresh.
> (Interview 35)

Some of the people in the communities with running water have also had their share of problems with the water.

> Sure we have running water, but you would not want to drink it. The pipes are so dirty that the water coming through them will only make you sick.
> (Interview 41)

> We are supposed to have running water but we haven't ever since the pipes froze down the street last year.

> Now nobody on the street has it. They were supposed to come from Chibougamau to fix it awhile ago but they still haven't come.
>
> (Interview 28)

According to the Crees, the naturally caused diseases could have either an individual or a social component. It is the duty of the individual mother and father to provide food, warmth and clean conditions for their children:

> My kids don't get many sicknesses because I know how to take care of them. I cook for them, I always have clean water, I keep the house clean and I keep their clothes clean. That's why they don't get sick.
>
> (Interview 50)

> A little baby I knew had been normal until one camping trip when its mother wouldn't listen to the advice her mother gave her about taking care of her baby. It caught cold. This damaged its brain and since then the baby hasn't been able to eat by itself, or walk or talk.
>
> (Interview 8)

> Children get sick if you do not look after them. I'm their mother and its up to me to look after them. I make sure that they are dressed warmly in the winter time, and that they are clean and well fed.
>
> (Interview 32)

> It's the mother's job to keep her children healthy. One of the things she should try and do is to have clean water. Water is important, having clean water to drink. I feel badly about it, but since the birth of my last baby I don't always have enough time to boil the water. The children could get something that way.
>
> (Interview 65)

> Maybe my baby was sick because I didn't keep the house clean enough. There was too much dirt in there. Our house was so full of children at the time - three families were living there and we didn't have running water in the house. There were no empty houses to move into, but maybe I should have moved my kids and myself into a tent.
>
> (Interview 36)

> To keep her kids healthy there are certain things each mother should do. It is up to her to see that they are bundled up in the winter, that they are getting good food and that they are clean.
> (Interview 40)

> Children get sick if you don't look after them - fooling around and leaving your kids, drinking on the weekend - it's not good for them.
> (Interview 15)

> A lazy person can get sick because his blood is slow. He doesn't move his blood enough. This means that working will keep you healthy. It is thought that if you want to live to be an old man or an old woman you should get up early and do a good day's work.
> (Interview 6)

In the case of accidents, a person does not talk about having a burn, or having a cut, but rather expresses his ailment in more personal terms: "I cut myself", "he burned himself", etc. - thereby implying that the individual is thought to take a direct role in incurring the ailment. While accidents are usually thought to be the result of carelessness or ineptitude on the part of the individual, as mentioned earlier, some are ascribed to the workings of midéo. In either case, however, the accident is the consequence of the action of either the individual who has been hurt or of the person who is acting on the sick person. It is not perceived as coincidence. Preventative measures, in the case of the former, requires that Crees perform their tasks with competence and alertness.

At the same time as the individual mother and father are expected to provide the basics for the prevention of naturally caused disorders, networks of support and exchange between friends and relatives provide food and warmth and are involved in maintaining a fresh environment. For one, bush food is routinely distributed through the networks of exchange.

> Whenever we want it we get bush food from my mother and from other relatives. If there is none around

> we buy it, sometimes from as far away as Pointe Bleue.
>
> (Interview 52)

Within the networks of exchange, Crees are sensitive to the needs of particular groups:

> Breastfeeding mothers always come first. They are the ones who need the most food. When people knew that there was a breastfeeding mother in their camp they saved food for her.
>
> (Interview 76)

> In the old days, the women got strong very quickly after giving birth because the people in the camps would make her special meals.
>
> (Interview 20)

Friends and relatives will often bring the pre-school aged children of the more settlement oriented people into the bush because they like the company of the children but also because it is good for their health.

> The grandparents like to bring their young grandchildren into the bush with them for the winter. It is so much better for them there. There they get all the bush food they can eat and they learn Indian ways at the same time.
>
> (Interview 46)

> My children are so much healthier when they spend the winter in the bush with my parents. They always have a running nose when they are in the settlement. They sometimes get infections when they are in the bush but not half as many as when they come back to the settlement.
>
> (Interview 24)

In discussing the group or the social origin of disease Crees point the finger in two different directions. On the one hand, in the case of garbage, Crees blame themselves for its presence:

> Bands have organized regular and reliable garbage removal systems to keep the garbage under control. But some of the people still throw their garbage into the gutter, or behind their houses anyways.
>
> (Interview 42)

Government policies have also been implicated by the Crees for their role in contributing to the high rate of disease in the communities. The shortage and poor quality of housing on reserves is related to the government's lack of interest in maintaining a decent standard of living on reserves. To counter the deficiencies in housing, since the signing of the JB & NQA the Cree have embarked on a program of housing construction.

People are also angry that governments have not seen fit to provide the funding to build and maintain adequate water and sewage facilities.

> Children are dying here from diseases which we really should not have to worry about. Babies should not be dying of diarrhea in this day and age. It's only in native villages where you can see anything like this - it doesn't happen to people down south anymore.
>
> (Interview 61)

Since the signing of the JB & NQA the Cree have requested that the provincial and federal governments observe their obligations to provide badly needed water and sewage facilities. A year ago, after a great deal of lobbying by the Crees the federal government promised just over $30 million dollars to develop the necessary infrastructure.

Whether the root of the naturally caused disorders is traced to environmental conditions, or the activities of the group or an individual, treatment is frequently pharmaceutical and spiritual - the two complementing the other in the manner described in the section dealing with Cree social relations. That is, medication is given and with it a little prayer is said to help the treatment do its work.

Temporality in the Cree Medical System

This section, and the next about the codes of disease, will explore the second proposition that the relations and ideology of social formation are not necessarily always contiguous with the relations and ideology in

the medical system. The idea posited in this section is that within the different levels of social formation are a plurality of historical forms each consisting of different attitudes, each with their own tempo and span of evolution - their own temporality (Anderson 1980).

Current conditions in the settlements have impeded the influence of social formation on the concepts of disease and the relations in medicine. This means that while the relations and ideology of self-reliance and cooperation are present in the Cree medical system their effect is moderated by mitigating circumstances and diluted by the presence of other relations and ideology. For instance, beleaguered by a raft of new diseases Crees find that they can no longer rely on individual competence to solve their medical problems.

> Running ears is something we didn't see too much of in the past. I'm not sure what to do when it happens - sometimes just cleaning the ears seems to help. But I don't know if there is a better way to look after them.
>
> (Interview 63)

Because Cree medical knowledge itself is often inadequate the idea of dealing with the problems solely through cooperation with other Crees is not always held to be appropriate either:

> There are so many new sicknesses now. I don't know what to do when my children get them. Like diarrhea, the old ladies say that they never used to see diarrhea like we have it now. They don't know what the best thing to do is when our kids get it.
>
> (Interview 87)

Moreover, reduced contact between settlement and bush oriented groups circumscribes the networks of exchange and cooperation enjoyed in the past.

To elaborate, whereas in the past, knowledge and experience generated the self-reliance and cooperation through which the people asserted control over health matters, the environmental conditions (water, sewage and

housing) and the high rates of mortality and morbidity from new and unfamiliar disease have caused the Crees to feel that much disease is beyond their control. According to the respondents:

> We're not sure what the disease are. We don't know what they are from or how to avoid them. Maybe it is the water or the garbage lying around the place. We don't know.
> (Interview 64)

For the most part people in the communities are unsure about the role they as individuals and as a group play in preventing illness and even in exacerbating it. Furthermore, the cooperation in medical matters between Crees has diminished with the recognition that they have neither the skills nor the knowledge to deal effectively with many of the new diseases. Relations of cooperation have been replaced in these instances by relations of dependence on biomedical personnel.

> My mother-in-law would like to be able to help when my children are sick. There's so much sickness here so sometimes I ask her for advice but often she tells me that she does not know what to do for those kinds of problems. She tells me that the nurse might probably be able to help me.
> (Interview 61)

The ubiquity of cooperation as espoused by the ideology and social formation has been somewhat truncated in other domains as well. With the large increase in settlement population and with the division of Crees into bush and settlement oriented groups, communities are not as tightly knit as they were in the past. This is to say that the exchange networks, the networks of food sharing and cooperation are not as extensive as they were. The effect is that people are not necessarily aware when their help or advice is needed.

The awareness, interpretation and initial diagnosis of symptoms is still done at home by the mother whose competence as a mother is judged

on the basis of how well she takes care of her children. Despite the fact that the older generation readily acknowledges the present limitations of their medical expertise, according to the respondents, most of what they know about disease is learned from experience and from their mothers, mother-in-laws, and older Cree who are skilled in medical matters.

> Lots of women ask their mothers and mother-in-laws for advice if they do not know what to do. But for certain things, like bad colds and diarrhea, their mothers would probably tell them to go to the doctor.
>
> (Interview 42)

> People still live with their parents after they are married because there are not enough houses. In the old days they lived with their parents so that they could learn the ways and do the work. The mothers would tell the young wives how to bring up their children and give advice when the children are ill. They still give advice to the younger women when they are pregnant and when their children are sick.
>
> (Interview 54)

> I first asked my mother for help. The mothers or mother-in-laws will usually tell the young mother what to do, especially if they are living together. The old ladies know a lot about taking care of people.
>
> (Interview 36)

> When I was first married I lived with my mother-in-law. She helped me when my babies were sick. They know what to do with babies.
>
> (Interview 37)

> If you listen to the older people you won't have many problems. I was happy to listen because I wanted my children to be strong and healthy.
>
> (Interview 40)

But the sharing of medical knowledge is eclipsed by the fact that not all the mothers of the younger children have full access to advice from the older people. With its guaranteed annual income for hunters the JB & NQA has increased the numbers and duration of people in the bush.

It is people over the age of 35 who constitute the majority of the hunters with about 70% of the adults over the age of 35 going into the bush and and only about 40% of the people between the ages of 21 and 34 going into the bush.[5] Older people are hence not always readily available to give advice to the people remaining in the settlement.

In summary, for some diseases there is no longer absolute clarity about the role of the individual and the group in their etiology. This is not to imply that the group and the individual have been absolved of responsibility in all disease causality but rather to suggest that people are often unsure of how they are implicated. And while exchange networks may be truncated, within them sharing and cooperation are still vital organizing principles. Similarly cooperation with other Crees in dealing with unfamiliar illnesses has been replaced by dependence on the services of the biomedical system but still continues in those areas of disease where they have experience. All in all, at stake here is not so much the central organizing principles of cooperation and autonomy but the relevance to the people of those details of the Cree medical lexicon which have not been effective in the face of the new diseases. In the process however, the overall effect of the relations and ideology of social formation on the medical system has been tempered.

Codes of Disease in the Cree Medical System

The present century has been witness to an expansion in the Cree repertory of disease as a result of the diseases wrought by contact with the white man and by underdevelopment. All are scrutinized by the Cree through the logic of their medical system. To the Crees any divergence from a state of well being indicates a pathology. This is not to imply, however, that Cree categories of disease are coterminus with all the

biological deviations which they observe, for disorders such as colds and running ears are interpreted as almost normal and some disorders are considered normal for certain people. The purpose of this section is to investigate the concepts underlying the Cree interpretation of specific symptoms. In particular I am interested in the criteria taken into consideration in the labelling, diagnosis and treatment of the five most frequently occurring diseases and disease symptoms among the children in the Cree communities. These are fever, gastroenteritis, respiratory disorders, skin infections, and ear problems. The discussion engages with the question raised by Proposition 2 - that is, the extent to which cultural processes are structured independently of the dominant forces in social formation.

My data indicate that the interpretation of the disease symptoms of children is arrived at by decanting the symptoms through three components which synergestically constitute the criteria for diagnosis. These three components are (1) the symptoms, (2) the age of the patient, and (3) the past medical history of the child. I shall examine the dynamic between these three components through the lens of a semiotic analysis of the medical signs which are salient in the current labelling and diagnosis of disease.

Semiotics is a general theory which attempts to interpret the life of signs in relation to their syntactic, semantic and pragmatic functions. Briefly, syntactics examines the relations between signs, semantics examines what a sign designates and pragmatics deals with signs in relation to the user. Each sign is said to encompass these three kinds of functions or relations, the meaning being propounded once the three dimensions have been specified. We will focus on diagnostic signs. Following Peirce, a

diagnostic sign is something (fever, pain, nausea, etc.) which stands to somebody (the witness of the sign, either the mother or medical personnel) for something (for a certain state of health of illness) and in some respect or capacity (according to the evaluative judgement of the witness) (Kahn 1978). The disease or illness is hence the sign, and symptoms are the signifiers.

I shall now proceed with a discussion of the three components central to the Cree construction of the codes of disease. The codes discussed here are synthesized from the factors incorporated into the labelling and diagnosis of disease. I lack the necessary data to demonstrate how the codes fit into a system of disease classification.

The Symptoms

Biomedical workers diagnose and treat diseases, defined here as abnormalities in the structure and function of body organs and systems (Kleinman 1978). The criteria used by the Cree to define disease correspond to the concept of illness, denoting the experience of being sick or suffering. The terms need not be mutually exclusive but one may have a disease without appearing to be ill and vice-versa. For the Cree the degree of suffering and the anticipated consequences of symptoms usually provide the yardstick for interpreting the nature of the disorder. So does a sudden change in the appearance of the person as might arise from rapid weight loss, glazing eyes and change in temperature. Because they exhibit certain features and have potentially life threatening consequences, fevers, gastroenteritis and some respiratory tract disorders are thought of as serious in contrast to running ears and skin infections. In addition, symptoms which are unusual for the person are also thought to be potentially serious as are illnesses which do not go away and

and illnesses which consist of multiple symptoms. To be more specific:

Fever

The data indicate that if there is one symptom which signals a disorder to the respondent it is a rapid and uncontrolled change in temperature, whether up or down. Depending on the age of the child, fever or *chisiteunikusiu* is perceived by all the respondents as one of the key indicators that something could be seriously wrong.

> Of all the sicknesses which the children get here, fever makes me go to the hospital the fastest. High fevers can lead to convulsions especially if the mother can't bring the temperature down.
>
> (Interview 57)

According to mothers interviewed, interpretation of the fever is usually shaped by the age of the patient in conjunction with the severity of the fever and the other symptoms which may be occurring at the same time. The severity of the fever is determined by touch, by skin color and by the appearance of the patient's eyes. The hotter the forehead, the more flushed the skin, or the glassier the eyes the more the fever will be deemed serious. In combination with respiratory disorders, gastroenteritis, meningitis and even alone the people say that children with fever often quickly and seemingly inexplicably die. In their experience newborns are especially vulnerable, hence, a sudden increase in their temperature will cause the mother to seek medical aid immediately lest complications develop:

> As soon as you notice that a newborn has fever you really have to do something. They can't help themselves at that stage and can get very sick so if my one month old baby gets fever I feel that I should go straight to the nurse.
>
> (Interview 72)

The respondents state that fevers occur more frequently amongst the

the younger children gradually diminishing as the child grows older. They state that once the mother begins to recognize the child's patterns of disease, fevers become less a cause for alarm, and she will attempt to treat them at home before seeking help from biomedical workers:

> I don't take my kids for high fevers anymore - their fevers do not seem to be too dangerous. I try to take their fevers down myself. Friends told me that the best thing to do is to keep them from getting too hot. So I give them a bath and put them in diapers and a t-shirt. Then my little kid and I say a prayer to Jesus to help us. With my first baby I always took her until I found out that her fevers were not a problem anymore.
> (Interview 51)

> I look after their fevers myself now that the youngest is a year old. Like my mother says, I give them aspirin and keep them wrapped up warmly to sweat all the fever out.
> (Interview 68)

> Now I do what I saw the nurses doing for fever. I give them tempura and a sponge bath. With my little baby sometimes I also rub alcohol all over her with her diaper off.
> (Interview 75)

Respiratory Disorders

According to our data, the interpretation of respiratory diseases varies according to the age of the patient and the combination of symptoms appearing at that time. All the respondents agreed that respiratory disorders constituted the illness most frequently experienced by their children:

> Colds are a big bother around here because the kids always have them. They're not always very serious but it's sure hard to get rid of them once they have caught them. The worst thing is that once one of them catches a cold all of them seem to get it and then you can never get rid of it.
> (Interview 24)

> Colds are the biggest problem in my family. My ten month old has had a cold almost ever since he was

> born. I give him aspirin which sometimes seem to work but then he just gets it again.
> (Interview 26)

> The problem which my children have the most is with colds but we don't have too many because the children spend most of their time in the bush with us. They do get colds in the bush once in the while. They get a lot more of them when they are in Fort George though.
> (Interview 28)

Most commonly occurring were 'colds' or *utachikumu* by which our respondents were referring to running noses. In view of the fact that their children had colds most of the time many of the mothers noted that they had begun to consider them part of the child's normal state. Those interviewed said that they use the same criteria to judge the seriousness of colds as they do for other disorders - that is according to the concomitant presence of pain, fever or such unusual features as glassy eyes, or difficulty breathing.

Because of their potential complications, colds and coughs or *eustutahk* generated much anxiety in the past.[6] Coughs frequently signified T.B. or *ghostooldaganuitch ay yow* and colds were known to alternatively rapidly turn into pneumonia or 'to drive a person out of their mind':

> When someone catches a cold it can be very bad. You should sweat it out to get rid of it otherwise it goes to the head. Once it is in your head you can go out of your mind. Then if feels like something is going on inside your head and you don't know what is going on as if you were drunk.
> (Interview 8)

With biomedical services now available should complications develop, mothers say that they prefer to initially treat the symptoms themselves.

> I never go to the doctor or the nurse just with a cold because I can look after it myself. They would probably do the same thing for a cold that I do - I rub my kid's throat and neck with Vicks and the cold then goes. The cold goes when the Vicks warms

> the cold. Vicks goes right through the skin and warms the cold.
>
> (Interview 27)

> I usually look after the colds at home. The older people give lots of advice about colds. They have told me how to use goose oil, and when there is no goose oil how to use lard. If the child has a sore throat at the same time my mother-in-law boils herbs into a special drink for her.
>
> (Interview 40)

> I never take my kids to the hospital for colds. I prefer to look after them myself. I use either goose oil or Vicks, Vicks mostly when I don't have any goose oil. I also bought a humidifier to help then when they get colds.
>
> (Interview 41)

If the home treatment does not succeed in removing the fever and if the cold gets worse (i.e., trouble breathing, pain in throat, too much coughing) mothers will bring their children to the hospital or nursing station.

> The most common health problem in my family are colds. If the colds don't go away I will sometimes bring the child with the cold to the hospital, especially if the cold is getting worse, or is spreading. Before that I'll give them asparin and rub Vicks on their chest and throat.
>
> (Interview 29)

> When my two month old had a cold we tried all the medicines which the older people use for colds. We first rubbed lard on his chest. When that did not work we tried goose oil for a couple of days. When that did not work either my mother called in her friends for advice. They did not use asparin because he didn't have a fever and because my mother thinks that it isn't good to give drugs to a baby so young unless you really have to. She says that it can make them weaker when they are older. The old ladies could not think of what else to do and decided we should take him to the hospital just to be on the safe side.
>
> (Interview 36)

Familiar with the rate of child mortality from respiratory diseases the respondents claim that once it becomes clear that the infection, *emiyut uuhpan*, has spread they are adamant that their children receive the attention of biomedical practitioners.

Gastroenteritis

According to the respondents diarrhea can either be one of the most dangerous disorders their children can get or it can be relatively insignificant:

> Around here diarrhea can be one of the most serious sicknesses your child can get. Some of the children have died from it but the nurses don't seem to notice. They're too inexperienced. Not all of the babies that get it die but a lot get very sick and end up in the hospital.
>
> (Interview 70)

Cree mothers distinguish between diarrhea which is accompanied by a fever and diarrhea which just involves an increased number of bowel movements. The latter, if it does not last too long and result in too much weight loss, is not thought to be dangerous.

Those interviewed said that in the past children sometimes got diarrhea but that it usually went away within a few days and usually did not involve fever. When their children did get diarrhea mothers and mother-in-laws would recommend that, no matter what, the mother should continue breastfeeding, that the diarrhea would pass. In view of the fact that mothers breastfeed less than the generations did before them, and considering that the consequences of gastroenteritis can be more serious than they were known to be in the past, the suggestion from the older women to continue breastfeeding as a response to the symptoms of gastroenteritis is now seen by Crees as insufficient:

> My mother wanted to help but she didn't know what the best thing to do was. The old lady had never

> seen a baby sick like that with diarrhea before. She says that serious cases didn't seem to happen before. She thought that the nurses would probably know what is best.
>
> (Interview 65)

Crees are unsure about what it is that has caused gastroenteritis to become the problem it has:

> I don't know why my baby ended up in the hospital with diarrhea. I don't know much about diarrhea except that it may come from the water but the spring that my baby was really sick with it I had been boiling the water. He only drank the water which had been boiled. Still from the time he was born he had been drinking mostly canned Carnation milk, not water so I don't know what the problem is.
>
> (Interview 64)

> I don't know why the babies get diarrhea so much now. In the spring time people say that it comes from the water. My little girl got it at the end of the summer so it probably was not from the water. Anyways, at the time she wasn't drinking too much of the water because she was too young. She was only 8 months old and until then she had really only had homogenized milk to drink.
>
> (Interview 70)

As a first resort then, young mothers experiencing diarrhea in their infants for the first time turn to friends or medical personnel for advice. Most of the respondents stated that on the basis of this advice they would treat the diarrhea by removing milk from the infants diet, giving it flat 7-Up and rice water in its stead. If this proved to be a successful approach to removing the symptoms the mother would adopt the same procedure with all subsequent bouts of diarrhea. Other dietary advice, on the other hand, was frequently disregarded:

> The doctor gave me a special diet to follow for diarrhea but I threw most of it out because the food on it was not suitable for my little baby. My baby was 2 months old at the time and I didn't see how he was going to eat peas and carrots.
>
> (Interview 41)

If after a couple of days the 7-Up and rice water do not succeed in removing the symptoms, that is if the loss of fluid continues, or if the symptoms become worse, that is the fever increases and the baby continues to lose weight, all those interviewed stated that they seek biomedical attention immediately:

> At first I didn't really worry for I know that it usually goes away after I give him the rice water and the 7-Up, and stop feeding him other things. If it doesn't go soon, though, he gets worse from not eating and I have to do something else. If his fever goes up and the diarrhea has not stopped I have to get to the nurse fast because then it could really get serious.
>
> (Interview 59)

People also said that if the initial symptoms also included fever, particularly a fever which they could not reduce, they would see medical personnel immediately.

Ear Disorders

Ear disorders are also said to be new to the people:

> Thirteen years ago when my youngest child was a baby there were not many problems with running ears and pains in the ears. We didn't have those sicknesses in the bush. We got colds sometimes but not ear problems.
>
> (Interview 28)

Although ear disorders are recent they have been incorporated into the medical thinking of the Crees and response to them is consistent with how decisions are made about disease in general. Most of the mothers interviewed said that their children had experienced some kind of ear disorder - either pains, or pains and fever, or running ears. The reaction varies according to which of these symptoms the child experiences. Pain alone, or pain accompanied by fever, signals that something is seriously wrong, and generates immediate action.

> Pain in the ears makes me act very quickly because my little girl is in so much pain. I can't stand to see her suffer like that.
> (Interview 25)

Running ears alone or *euhchikuuniko uhtaukai*, by way of contrast, does not generate much concern:

> I can look after their ear problems myself. Goose oil and aspirin are good for getting rid of the fever and the pains in the ears. If the ears begin to run I use Q-tips to clean them out. I don't go to the nurse. With all my children I have removed the stuff in their ears myself.
> (Interview 44)

The data indicate that the distinction hinges on the presence or absence of pain, and in the case of fever, a fear that they will not be able to control it:

> My baby was crying and he kept rubbing his ears but I also knew that there was something wrong because he had a fever at the same time. I didn't wait because I was afraid that the fever would get worse. We had a truck and could get to the hospital right away. Every time that my baby gets those pains and the fever we go to the nurse because I don't know what is going on. I just know that they give us some medication every time we go.
> (Interview 33)

With running ears, people say that they notice that the running frequently begins after there has been a pain in the ears but since the fever and the pain do not necessarily coincide with the running the latter is not thought to constitute a serious disorder. Instead it is compared to a cold which comes and goes and does not really cause them much discomfort:

> Once I knew what running ears could lead to I started to go to the nurse when she got it. Before that it didn't seem very serious, it seemed to be like a cold but in the ear. I didn't do very much to the ears then - I cleaned them and sometimes put in melted butter.
> (Interview 56)

The respondents stated that they attend to earaches, and to earaches and fever immediately. Depending on the age of the child, most said that they preferred to look after the problem themselves before seeking the attention of biomedical personnel:

> My little boy had always had ear problems. He sometimes gets pains in the ears and fever at the same time. When that happens my mother tells me to put goose oil in the ear, to reduce the pain and asparin to control the fever. We don't need to go to the nurse when they're older and we know about their fevers.
>
> (Interview 37)

> When people do not have goose oil to put on the sore ears they can use lard. The Coasters are the ones with the most geese here so sometimes they save the oil, we usually use lard instead. Like if my children have earaches I melt the lard and put drops of it in the sore ear. I don't go to the nurse.
>
> (Interview 40)

> My children all had trouble with their ears when they were small. When they had ear aches I would rub goose oil on their ears or I would put in lard or I would use ear drops - all of them are good for ear aches. I use which ever one I have in the house at the time.
>
> (Interview 46)

Of the women whose children had had these kind of symptoms over half said that they had first treated the problem themselves. One-third said that they had gone immediately to the doctor. Of the women who had immediately sought medical attention, one-third had done so because the child was still an infant and they did not want to take chances. The remainder had gone to the doctor because they feared that they could not reduce the accompanying fever or pain themselves.

> My little boy has had trouble with running ears since he was three months old. I knew there was something wrong because he was hot and had a fever and he would not stop crying. I tried asparin to remove the fever and it started to run soon after that. I did not want to take any chances with a

> fever in such a young baby so we went to the hospital.
>
> (Interview 32)

> When my daughter was two her ear got swollen and red and pus came out. I gave her aspirin and put lard on it, but we ended up going to the hospital because the pain did not seem to be going away. Her ears had run before but this was the first time I had gone to the hospital. When the doctor examined her he said that he saw a small hole in her ear drum. He told me that if the hole did not close that she would have even worse problems when she was older. I don't know where that hole in her ear came from.
>
> (Interview 46)

Most of the mothers who had treated the ear pains themselves said that their cure had satisfactorily removed the symptoms. In instances where the fever increased despite the home treatment our data indicate that the mothers quickly sought help from health workers.

> I did something right away because I did not like to see him in pain. I put Vicks on his ears. He can't take asparin because he gets bleeding noses every time that he does. Although the Vicks worked when my other children had the same problem with their ears, it did not work for his ear ache. So after he had cried all night from the pain I decided that we should take him to the doctor.
>
> (Interview 24)

> I only went to the nurse one time when my kids had pains in their ears. Usually I just rub Vicks on their ears and give them an asparin but the time I went this had not worked.
>
> (Interview 27)

As mentioned above the reaction to running ears is completely different. The symptoms are not ignored, but since they do not cause discomfort they are not usually thought to require much attention. According to those interviewed the most common treatment for running ears consists of cleaning the ears with Q-tips during the period that they are running. The interviews indicate that people have not had sufficient experience with this disorder to be aware that ear infections, if untended, may

have serious implications in the long term on the hearing of the patient. In the meantime much of the running ears continues to go unreported. In fact only a few of the mothers mentioned that they had gone to the doctor as soon as the ears started running. In most of these cases the mother had gone because she was concerned about the fever which had preceeded the running. Generally however, unless the fever coincides with the running the two are not associated and the running ears are not perceived as problematic unless someone advises them of the consequences.

> Before going to the nurse I thought that the problem would go away if I cleaned out his ears, like if I kept removing the stuff that was in there. But my mother told me that I should take him to the nurse because she had heard of an older lady who had had the same problem and she had gone deaf in one ears. (Interview 51)

Skin Infections

Our older respondents indicate that many of the skin infections are also new to the people. This is not to suggest that skin infections were unknown, for all mention seeing infections related to infected mosquito bites. Skin infections in the past were thought of primarily in terms of mosquito bites and were hence perceived as seasonal, as associated with the summer time and rarely encountered during the winter.

> Many of the children would get infected mosquito bites during the summer. Sometimes people got other things like rashes and boils on their skin but we didn't usually worry about the kind of infections from bites during the winter because there were no flies around. (Interview 56)

Like ear infections people associate the increased rate of skin infections, especially those occurring in the winter, with settlement living. While the people recognize the differences in appearance between such skin infections as scabies and impetigo, according to our data, they distinguish

between the two on the basis of whether they are 'spots', *eumichit*, or 'sores', *umichiyu*. Spots are diagnosed as sores after they have become infected and painful. Hence scabies and impetigo spots are treated as if they were the same disorder, as are scabie and impetigo sores, with the response varying according to the age of the patient and the degree of discomfort involved. Spots and sores in babies precipitate more concern than the same symptoms in an older child. In general however, when spots first appear they, like other spots such as fly bites or small cuts, do not create much discomfort. Because the usual symptoms of illness are absent - that is, there is little suffering or fever - most of our respondents said that they assume that the spots will go away naturally if they are kept clean.

> When you get sores from mosquitos, clean them, then put on lard so the flies can't come back and bother you. I kept putting the lard on until the sores got better.
>
> (Interview 51)

> Besides measles and chickenpox the other skin problems my boy had was infected mosquito bites. When they get infected it is best to keep them clean. I wash them, keep them clean and cover them with lard.
>
> (Interview 66)

It is only after the spots have become infected causing great itchiness and pain that they are diangosed as sores. Our data indicate that mothers prefer to look after the disorder themselves before seeking the attention of biomedical personnel. All the women who said that their infants had had skin infections had first treated it themselves.

> The sores had spread to both arms before I realized that they were not going to go away by themselves. They had begun as small dots which every time they were scratched filled up with pus and a watery stuff came out. And they seemed to be spreading. So I washed her arms and the sores with alcohol until the sores dried up. They dried up that way, they didn't itch and they didn't spread so I did not think that

> I needed to go to the nurse.
> (Interview 41)

> I don't usually go to the hospital for sores because I can fix them myself. It's when they hurt or get too itchy that I go.
> (Interview 27)

> I never go to the nurse for these kinds of problems, I always look after them myself. Sometimes I asked the nurse for the soap that they use on the infections but the soap does not always seem to keep them as clean as the lard.
> (Interview 62)

> The nurse had given me a special soap for skin infections but I didn't try it because I preferred to do what my mother said worked. That was the time when his sores were really infected but my mother said that the lard would be better.
> (Interview 51)

They stated that it is only when the home treatment does not remove the pain and the itchiness that they seek outside help.

> My little kids always have infected fly bites from scratching them. I've been using goose oil and lard to remove the itch but my sister tells me that noxema is good too. If the infection is really bad, though, like if it has spread and it hurts them we go to the hospital for an antibiotic.
> (Interview 45)

> At first I thought that they were just sores and that they would go away by themselves. In the old days when the sores became infected the people rubbed them with beaver fat and with oil. I decided not to do this but to try to keep them clean instead. But the sores just spread all over, by the time I took him to the hospital they were everywhere and they were really bothering him.
> (Interview 33)

Age of Patient

A Cree mother is judged by how well she takes care of all her children but as indicated in the discussion of the specific symptoms the age of the child plays a major role in determining what kind of care a mother should give. We found that for the Cree, symptoms are read differently

depending on whether they are experienced by a child who is between birth and 2 years, 2 years and 4 to 6 years, and 6 years and 12 years.

Birth - Two Years

Cree babies are the object of constant attention and a great deal of love. Newborns sleep with their parents and in general spend very little time out of their mothers' sight. Moved by the helplessness of infants our respondents state that mothers strive to do what is best for them. They say that they feel terrible when the little ones become ill, fearing that they have been negligent, that they have not taken good enough care of them:

> We don't like to see our little babies suffering and in pain. As soon as we notice there is something wrong with them we try to help them. We really want to get rid of the sickness.
> (Interview 24)

The old people speak almost poetically about the relationship between mother and baby:

> Babies count on love to keep the breasts flowing with milk. They know how much their mother loves them by how strongly her breasts are flowing. If a mother loses interest in her baby her milk will spoil.
> (Interview 15)

And if a young breastfeeding baby dies, as the mother mourns, the milk secreted from her breasts is said 'to share with her in her sorrow, building up and flowing with her tears' (Interview 74).

As would be expected because of the high rate of mortality and mordibity among young infants people are extremely sensitive to any change in the physical condition and mood of babies. Knowing how susceptible infants are to disease any deviation from the normal state of well-being is considered a cause for alarm. Hence, while pain and fever are the

symptoms by which illnesses are usually recognized, with little babies any change is considered sufficient to warrant medical attention. Not wanting to take a chance mothers say that with this group they are more likely to turn first to biomedical personnel than to home treatments.

Two Years - Four to Six Years

The illnesses of this group of children do not generate as much concern as do the illnesses of the babies. As each child becomes a bit older our respondents stated that they began to recognize a pattern in the disorders of their children. Certain disorders will often seem appropriate for a particular child. Most of the mothers stated that what was once a potentially dangerous symptom for the newborn does not seem to affect the older child as drastically or as frequently.

> Older children don't seem to get as many sicknesses. When my little girl was just a baby she had many bad fevers but they stopped when she was about 5 years old. Before she used to get high temperatures when her eyes would look different. Now she just gets colds.
>
> (Interview 43)

In many cases the mother has learned through experience how to cope with the problem herself. For instance, fevers which would have caused her to go immediately to biomedical personnel when the child was a baby are now usually treated at home. The mothers' task in determining the seriousness of the sickness is further facilitated by the fact that the children can now tell the mother how they feel, thereby eliminating some of the guess work. As a rule then disease symptoms are measured against the symptoms which are thought to be the most serious, as well as against the child's 'normal' pattern of disease, and treatment is first attempted at home.

In addition, children in this category are accorded the independence to discover and explore on their own. With no one standing over them constantly supervising they are able to explore and learn on their own. Three respondents stated that such independence frees the mother to devote more time to the youngest children but does impede the early detection of disease.

Six Years - Twelve Years

The interpretation of symptoms experienced by this group are also informed by Cree criteria of disease, and the child's normal pattern of disease but it is complicated by factors introduced by the child. As children grow older they often become reluctant to admit that they are not feeling well:

> As the kids get a bit older, especially the boys, they don't want to say when they are sick. They want to be more like the men. Girls can say if they are sick because they don't have to be as strong as the boys who think that they can fight everything they get. The boys want to be brave. (Interview 29)

Boys are not alone in their ability to tolerate extreme discomfort. Numerous examples are cited of young girls who chose to endure their injury or pain because they were afraid that they would have to go to the nurse or doctor if they complained of discomfort. In addition, because the health problems of the older children have less drastic consequences our respondents say that they can afford to be, that in fact they are, less sensitive to them. Moreover, their opportunity to detect illness in this group of children is thwarted by the fact that children spend more time away from home.

Past Medical History

The past medical history of the child also influences the reading of symptoms. Mothers interpret symptoms in a child who has a pattern of quickly succombing to disease as indicating disease before she would in a child she knows is less vulnerable to sickness. Hence, the same symtpoms in one person could signal an illness while in another they could be ignored.

Semiotic Analysis of the Codes of Disease

To reiterate, the Cree interpret symptoms not as discrete pathological entities but in terms of the experiential and anticipated consequences of the symptoms in conjunction with the age of the child and his/her past medical history. In the language of semiotics the disease codes are constructed from an amalgamation of the syntactic, semantic and pragmatic relations embodied in the illness episodes. Each contributes to the meaning of disease in the following manner.

Syntactics

The syntactic component identifies the relationship which is constructed between specific symtpoms whether they occur simultaneously, in sequence or over time. In the case of the Crees, multiple symptoms, and especially those which occur simultaneously with either fever or pain generate a great deal of concern and an immediate response. The interpretation of symptoms which occur in sequence on the other hand, varies according to the sequence - that is according to the importance Crees accord to the specific symptoms. For instance, pain followed by running ears is not perceived as serious whereas pain followed by fever is. The same symptoms which reappear over a period of time are also considered

serious only in relation to the perceived seriousness of the individual symptoms such that some recurring symptoms such as colds and running ears may even be considered normal.

Semantics

The semantic function describes a direct relationship between the signified or the meaning, and the signifier or the symptoms. Its use in medical anthropology has usually been limited to those attributes which make up the necessary physical condition for membership in a class - that is, the distinctive biological features of the illnesss (Good 1977:177). D'Angrade (1976) and Good (1977), both seeking a semantics which de-entifies disease, have attempted to transcend the limitations of the semantic approach. In contrast to other workers who limit their use of semantics to the distinctive biological features of the illness, D'Angrade (1976) suggests that:

> The characteristics which . . . formed the core of the different belief clusters appear to be the consequences and the preconditions of illness.
> (D'Angrade 1976:159)

Using an example from his English informants to illustrate the point D'Angrade (ibid.) reasons that the salient feature about cancer is not its definition but the consequences and implications of cancer. So too with the Cree for whom the significance of such illnesses as gastro-enteritis, some respiratory disorders and fever is derived from the knowledge of their potentially life threatening consequences. The interpretation of running ears and skin infections is also informed by the consequences of these disorders. But, because in the experience of the people, these disorders do not appear to be life threatening or disabling they are not perceived as serious.

Good proceeds in a different direction from D'Angrade stipulating the need for:

> . . . a semantic network in which disease categories don't just define symptoms but consist rather of a syndrome of typical words, feelings and experiences. (Good 1977:27)

He objects to the process of diagnosis in biomedicine whereby diseases are conceptualized as discrete pathological entities and symptomology is removed from the social context of the patient. Like D'Angrade he is concerned with how the meaning of disease is defined by what it means to have a particular disease. Unlike D'Angrade, Good does not express the meaning of the particular disease in terms of its perceived seriousness but rather, following Victor Turner, in terms of its social and symbolic character. The social and symbolic attributes are said by Good to constitute the 'inscape' of the patient and it is the 'inscape' that he asserts constitutes the basic ingredient in medical meaning. From this point of view disease embodies a complex of symbols, feelings and stresses which are deeply integrated into the structure of the community and its culture. Relating this to the Crees, as illustrated in the previous discussion, the symbolic value of babies, the role of children and the emphasis on their independence, as well as the relationship between the status of the mother and the health of her infants, all play a role in the labelling and diagnosis of disease.

In short both D'Angrade and Good argue that the meaning of disease should be focused on the connotative, rather than the distinctive, aspects of disease. Connotative features are attributes which are found in association with the signifiers/symptoms. With the Cree we see that the connotative features of the sickness play a greater role in elucidating the meaning of the symptoms and in generating a response than does an

approach which equates disease with the distinctive features of the disorder alone.

While semantics can provide the tools to investigate experiential elements of disease it does so by concentrating on the signifier/sign relationship such that the meaning of the symptoms is read directly from the connotations of the symptoms. The emphasis on the connotative has reduced some of the determinism between signifier and sign. But within the Cree medical system the structural relationship between signified and signifiers provides insufficient information for generating the grammar of the codes of disease. For as the forgoing discussion indicated a number of other factors also contribute information which is integral to the interpretation of the signifiers and hence to the evaluation of whether symtpoms constitute an illness. The semantico-referential approach neither considers the extent to which the interpretation changes in response to different contexts nor does it explain the presence of diachronic ingredients in Cree diagnosis.

Pragmatics

Concerned with the procedures which govern the social use of signs, pragmatics is the branch of semiotics which examines how context adds signification to the interpreting agent. It investigates the performative aspects of language. By way of illustration, it incorporates into the meaning of the sign the intent of the actor, the affective and intentional concomitants of the sign, and most importantly for our purposes a category of expectation and evaluation. The incorporation of expectation and evaluation into the analysis inserts into the signifier a diachronic element which is absent from the purely semantic approach.

In pragmatics the notion of context has frequently been narrowly and vaguely defined. For example, at times Morris stresses the importance of evaluation and expectation in the interpretation of signs yet elsewhere he argues that context is created as a result of the sign triad, rather than as a cause, in which case nothing save knowledge of the sign itself is necessary for the interpretation (Hardy 1978). This use of pragmatics is too ambiguous for our purposes. The most appropriate approach for our data appears to be one which examines the signs in terms of the larger medical context. We propose Stalnaker's orientation to the three types of context which lend meaning to signs. Subscribing to a linguistic analogy Stalnaker (1972) argues that in order to evaluate meaning one must consider the proposition in relation to several contexts: (1) the sentences which utter them, (2) the linguistic acts in which they occur, and (3) the domain of the presuppositions and dispositions. Of these the context created by the 'domain of presuppositions and dispositions' is the most useful for our purposes because it permits us to illustrate how Crees simultaneously situate the meaning of disease within the disease profile of the settlements and the medical history of the individual patient. Both generate presuppositions which affect the interpretation of specific symptoms and both underline the vitality of the diachronic ingredients in the Cree defintion of disease.

The diachronic aspect in Cree disease codes is manifested on three levels: Firstly, a mother's knowledge of the medical history of her child greatly influences her interpretation of symptoms. For instance, whether the child is known to quickly succomb to disease in general, or to certain symptoms in particular, or whether the child is known not to be especially susceptible to illness shapes her perception of symptoms. The

upshot of this is that the same symptoms can be seen in completely different ways. They are perceived in relationship to the individual child such that symptoms appearing in one child could signal illness while in another child they might not.

Secondly, awareness of the disease history or the disease profile of the reserve also contributes to the significance of particular symptoms. In this instance Crees' interpretation of disease is both historical and situational. As state earlier, living on the reserve makes them especially sensitive to the symptoms of gastroenteritis, infantile fever, and some respiratory diseases. They state that were they not living on the reserve they would interpret certain symptoms differently because they would have less dangerous ramifications. Similarly, they state that they interpreted certain symptoms, colds, for instance, differently in the past.[6]

Thirdly, the age of the child constitutes a number of predispositions about the meaning of disease - presuppositions about how certain symptoms affect certain age groups. Semantics permitted us to see how age was a factor in differentiating between symbolic values of babies and young children, and how the known consequences of certain disorders are incorporated into the construction of meaning of disease. Pragmatics indicates how the presuppositions about the effect of disease relates to age specific categories independent of the symbolic value associated with the group. It also shows that the seriousness of the disease is not a static quality but rather that its relevance is established as a function of the medical history of the child and the diseases <u>currently</u> impinging on the community. It contributes a dynamic element to the construction of medical meaning - a dynamic which is grounded in history and which is responsive to change.

Summary

In summary, following Proposition 1 we note that the dominant relations and ideology of the Cree domestic mode, that is sharing and cooperation and self-reliance and autonomy, structure concepts of disease and relations in the medical encounter. As predicted by Proposition 2, however, total determinance by the social formation is tempered by historical circumstances and the logic or grammar associated with the codes of disease of the Cree medical system. While shaped by Cree social formation the concepts of disease and relations in the medical encounter can not be reduced to it. This kind of structural analysis of the social and conceptual determinants of medical systems will be continued in the next chapter dealing with the biomedical system.

Footnotes

[1]Personalistic: disease, like other misfortune, is said to be the result of human or superhuman intervention and requires a spiritual or religious cure.

[2]Naturalistic: disease is caused by natural events and treated by pharmaceutical means. It is not associated with other forms of misfortune.

[3]Most of the younger Crees are not familiar with this explanation: They subscribe to the prescription for good health (i.e. exercise, food cleanliness etc.) but they do not provide an explanation for why these things are conducive to good health.

[4]Women strive hard not to catch a chill saying that it can impede the natural flow of milk in lactating women, it can interfere with the menstrual cycle and it can spread to the head causing mental problems.

[5]Income Security Programme data, Mistassini, 1980-81.

[6]Colds were greatly feared in the past, particularly in the years when T.B. was rampant. With T.B. more under control and with easier access to biomedical services the fear of colds has been greatly reduced.

CHAPTER IV

THE BIOMEDICAL SYSTEM IN CREE COMMUNITIES IN JAMES BAY

Introduction

Until the signing of the JB & NQA there were no federal statutes establishing the right of Indians to health services on the basis of being Indian. Treaties between native people and the Crown frequently contained a medical chest clause but the courts have generally ruled that the clause does not confer on native people the right to free medical care. Instead, in response to the appalling state of native health, the government developed policies with the general objective of assisting Indians in 'attaining a level of health comparable to that of other Quebecers and Canadians' (Canada 1974).

Through the nursing station programme the federal government intends to operate on all reserves public health programmes which include prevention and counselling services, a health education programme, and medical and dental treatment services. For instance, it proposes to provide as community health services, maternal and infant health programmes promoting breastfeeding, visits to mothers during the post-natal period, routine check-ups of the growth and development of preschoolers, and regular briefing sessions for mothers on basic subjects. Amongst the school health services recommended by the policy are programmes such as regular examination of school aged children for eyes, ears and throat, hemoglobin, height

and weight. Also said to be crucial is the control of contagious disease through immunization, quick reporting of outbreaks of contagious disease and regular testing of water supply. Finally, according to the policy, emphasis is placed on the importance of health education programmes which stress teaching the basics of family health and nutrition. In short, it is a programme which aims to concentrate on prevention while also providing curative, out-patient care. Most of these services are not provided to the Cree communities where, despite the assertions of the federal government, the emphasis in the medical services continues to be on the curative.

Entrenching the federal policies on health services are the statutory obligations in Section 14 of the JB & NQA concerning Cree health and social services which state that Quebec will provide the Crees with the funding for the

> . . . support of services which are not included in provincial programmes for the general public but which are provided to native people by the Department of National Health and Welfare.
> (JB & NQA 1976:Section 14.0.22)

Recent events in James Bay have proven however that the present legislation is no guarantee that budgets to adequately finance necessary health services and facilities will automatically be provided by the government. Moreover ambiguities in the wording of the legislation provide the government with loopholes should their reticence be challenged. Despite the legislation then the villages face a serious paucity of health services, and are understaffed, underprogrammed and underequipped (Richardson 1981).

I will investigate the biomedical system in the Cree communities in the same manner that I did the Cree medical system. Interested in the dynamic between Proposition 1 and Proposition 2 I will examine first the

influence of social formation on the social relations and ideology in the biomedical system and then I will investigate the specificity of the biomedical system according to its temporality and processes of disease classification.

As forewarned at the end of the section in the Introduction on Methodology and Research Techniques the extraction of these elements from their overall context in biomedicine, in concert with subjecting them to a structural analysis has the effect of caricaturing biomedicine. Part of this distortion is inherent to a structural analysis and will be remedied in the next chapter where it is demonstrated that experience in day-to-day life mediates the structural determinants. Another part of the distortion is related to the tendency to consider biomedicine a homogenous mass. In response to this it should be remembered that it is biomedicine as practised in Cree communities which is under scrutiny here, and not biomedicine in general.

Social Formation and the Biomedical System

I begin with a presentation of my general approach to the relationship between biomedicine and social formation. As a component of capitalist social formation, capitalist social relations and ideology are instrumental in constituting the definition of disease and the social relations in the biomedical system. The argument is that as characteristic of capitalist social formation, both the social relations and ideology in medicine manifest structured inequality along class, gender and ethnic lines (Navarro 1978; Figlio 1979). But following from the posture developed in Chapter II, I argue that the relations and ideology in social formation, and by extension in medicine, are shaped by the power wielded by the different groups in the social formation. Within this paradigm I employ a

concept of power in which relations with the bourgeoisie fuel but do not necessarily exhaust the relations and ideology in social formation and medicine. Thus while the relations of capital may express an equal social relationship this should not obscure the impact that different groups (for instance the medical associations) may exert in the absence of their direct ownership of the means of production.

This approach stands in contrast to the position developed by marxists such as Bodenheimer (1979), Renaud (1978), and Navarro (1980). They compare doctors to plant engineers in terms of their roles and responsibilities, and nurses are compared to the shop foreman. Both in turn are considered part of the petty bourgeoisie (Bodenheimer 1979:71). This approach reduces the health workers to mere tools of the bourgeoisie, subject to their demands but not free to pursue independent action. Within their perspective, medicine in the welfare state is perceived as a major instrument of ideological reproduction, a part of superstructure where like other institutions so placed (i.e. education, the church, etc.) it is stripped of all theoretical import save that of reproducing the state and the bourgeoisie.

Arguing that medicine is merely an effect of material conditions, an immutable consequence of capitalist economic structure, is an over simplification which begs the question of the relationship between capitalist social formation, race, gender and biological variables in medicine. And it paints a mechanical relationship between the conjuncture of economic structures, class relations, and medicine, as if the coincidence of political and economic features sums up medicine. With social relations frozen in place it is difficult to explain the effect of the ongoing struggles and critiques against and even within biomedicine. And it is

difficult to explain the effect of the increasing power of medical associations over the last 20 years. I agree that medical personnel in native communities do serve to reproduce capitalist relations but will argue that in their capacity as health workers they are more than mere tools of the bourgeoisie. For as was demonstrated in Chapter II and will be developed more below, the historical development of the biomedical system and elements specific to medicine also contribute to medical relations and ideology.

In the following two sections I will illustrate the relations and ideology which the biomedical system shares with capitalist social formation, Proposition 1. The focus for the forces of capitalist social formation is the hospital, the institution which represents the metaphor of the relations and ideology of biomedicine in general (Figlio 1979:29). It provides the archetype for the practice of both hospital and nursing station medicine in the Cree communities. Biomedicine may be characterized by institution-based medicine and the professional dominance of physicians (Dunn 1979:115). The contradictions, or the structured inequality along class, gender and ethnic lines, in hospital and nursing station medicine which trace their roots to capitalist social formation are (1) the emphasis on disease centered curative practices rather than prevention, (2) the objectification of illness through reliance on indices and standards which remove society from the etiology of disease, (3) the hierarchical relations established between health workers and patients, and (4) the information gap between health workers and patients created by the former restricting the flow of information. Each of these will be examined.

Ideology in the Biomedical System

The veil of neutrality claimed by science asserts that medicine consists of a continuum of concepts and paradigms accumulating a more comprehensive and accurate understanding of external realities. I challenge this positivist perspective on the grounds that concepts in science are stamped by their position in capitalist social formation rendering them neither objective nor neutral (Navarro 1978; Figlio 1979; Holtzman 1981). Hence while science aspires to a more systematic analysis of the rules behind appearances it does so through a backdrop of historically specific assumptions, beliefs and contradictions which lend it a class, ethnic and gender component.

In medicine contradictions are inherent in the nature of the scientific inquiry - an inquiry which is dominated by the biomedical model of disease. Derived from precepts of cell theory, the biomedical model correlates specific abberations in cell functions with the disease agents. The meaning of disease is confined to the interpretation of the abnormality in cell structure and function. A specific symptom, or cluster of symptoms, indicates one disease, another cluster indicates another. The patient is then treated as a broken down machine which can be restored through surgical, chemical, or electrical tinkering. The result is a medical system in which the emphasis is almost exclusively on <u>treatment</u> and on the <u>individual</u> patient (Smith 1981). Very little import is placed on prevention or health promotion. Within the biomedical paradigm the cause of the disease is generally traced to the microscopic agent of disease, as if the identification of the agent of disease could substitute for a multifactorial explanation for disease.

Marxists claim that by limiting diagnosis to the agent of disease, attention is diffused from the extra-empirical determinants (social, political, economic) and the blame is placed on the victim. The consequence is that socially structured inequality is expunged from the definition of health and disease and the individual is considered potentially culpable, a danger to himself by virtue of his/her lifestyle, bad habits, or personality type. Working class and lower class ethnic groups are considered even more to blame. For instance the high rate of infectious disease in the lower class is attributed to their ignorance and lower class ethnic groups are thought to be ill because of their combined ignorance and superstitious adherence to peculiar customs which are deemed inherently illness producing.

The epistemological silence in biomedicine in effect facilitates the relief of individual suffering while simultaneously blurring the true cause of the disease. In the process, that aspect of the meaning of disease which is potentially threatening to the social order is diverted and the collusive role of medicine is shrouded. Moreover, even when prevention is a priority the epistemological silence and collusion inheres. Prevention is similarly relegated the responsibility of the individual. Because the cause of the disease is traced to the individual, prevention then focuses on changing that person's habits or way of life rather than addressing any of its macrolevel determinants.

The response to disease by the biomedical system in Cree communities conforms to this pattern. Firstly, activities at the nursing stations concentrate on curative, individual care. With few exceptions[1] the public health sector is totally inactive. Here a paucity of health resources, both staff and material, impedes the possibility of even implementing

public health programmes. Exacerbating this is the absence of direct structural links with the public health sector - the only direct ties in the medical system being between the nurses at the nursing stations and the doctors in the secondary hospitals where the orientation is solely curative. The activity of the nurses is in fact determined by the policies of the secondary hospitals. In addition, the DSC, the service responsible for public health is not located in any of the communities and has little first hand understanding of the nature of the health problems in the communities. Links with the environmental services are even more uneven. As with public health in general the environmental health infrastructure is almost nonexistent and there is virtually no connection between the medical curative sector and environmental health. The result is very little in the way of preventative services and no public health education.

Consistent with the approach in biomedicine the explanation by medical personnel for the high rate of illness among Cree children is traced to the individual. But in the Cree example our data indicate that the high incidence of disease is thought by the nurses to be an intrinsic part of a person's Creeness, the result of the 'bizarre and unsanitary living habits of the people' (Interview 155). In addition because of the constant utilization by the Crees of the health services the hospital health workers have assumed that, like children, Crees are totally dependent, unable to take responsibility for their illnesses and unwilling to assume a role in their prevention. Cree health problems are hence said to be the combined result of Cree backwardness and negligence and of the unwillingness of Cree mothers to care for their children.

> The way they live with all the children sleeping together, crowded and dirty - that's why they're always sick. The mothers don't want to take care of their children, instead they expect us to look after them whenever they're ill.
>
> (Interview 158)

Consistent with the overall pattern in biomedicine the little there is in the way of prevention in the Cree communities is also directed at the individual. Vaccinations are done as is the occasional screening for T.B. Since disease is traced to the individual rather than to the larger economic and political determinants interviews with the nurses indicate that prevention is usually thought to be synonymous with health education. Within this view of prevention, for example, children do not succomb to diarrhea epidemics because sufficient funds were not allocated for an adequate water and sewage system and decent housing but because people do not store waste or clean their houses properly. Discussion of measures to prevent further outbreaks are then confined to teaching the people about 'proper' water and food storage methods, how to 'use' the bathrooms or outhouse and how to clean the house.

Social Relations in the Biomedical Encounter

As we shall see in the medical encounter biomedicine is also linked to capitalist social formation through common social relations. The dominant feature in the medical encounter in biomedicine is the hierarchical relationship between health worker and patient. Hierarchical relations characterize the medical encounter in many societies, the difference being that in biomedicine stratification mirrors the inequality and divisions in capitalist social formation - that is, it is mediated along class, ethnic and gender lines. Aggravating this is the hierarchy in relations implicit in the biomedical definitions of disease, themselves the result of their antecedents in capitalist social formation.

To begin with, a power differential between native people and whites in general in Cree communities is implicit by virtue of the presence of the latter in the communities. Regardless of their personal qualifications

whites have privileged status in the North.[2] In the settlements primarily as agents of the welfare state their duty, whether as nurses, teachers, government representatives, etc., is to raise the standard of living or to induce culture change. Drenched in authority, their presence is predicated on telling the people how to improve their lives. Relations with native people hence, have been relations of tutelage in which the natives must defer to the 'superior expertise and status' of whites in order to assure access to the goods and services controlled by the whites (Paine 1977). Just as the colonized are devalued, the colonizers are privileged: the latter earn a larger income, live in better housing and rarely associate with the natives except in their capacity as 'public servants'.

The ethical and technical standards derived from the biomedical model of disease further compound the hierarchical relations between white health worker and Cree patient. According to the biomedical approach to disease, pathology is equated with the agent which most immediately impinges on cell structure and function. The anatomical and physiological systems are tested for the presence or absence of disease according to specific technical and medical codes, with statements by the individual patient about his/her condition accorded relatively less import (Kahn 1978). Good care then corresponds to the technology, the drugs, the expertise which can best rectify the situation. Moreover, in medicine ethical standards presuppose that trust be based on efficiency and competence. In contrast to that of the Crees it is a professional model which does not require involvement with the patient.

Emphasis on technical codes obviates the need for compassion, for concern, for individual care, for personal contact. In fact the individual is often seen as an inconvenient intermediary between health workers and

the pathogen. Responding to this 'inconvenience' is the authority of the technical expertise and skill of the health worker which demands that the patient relinquish control over his/her body. This is a

> . . . source of social stratification in medicine in which people surrender control over their body to a more knowledgeable individual. Health workers exploit the competence gap by purposely withholding information. The competence gap is a structural factor which keeps the people from acting like equals. (Waitzkin and Waterman 1974:19)

The upshot is that medical personnel exhibit a greater interest in dispensing medicine and thwarting communication, generating relations which are pregnant with condescention and which are patronizing. Moreover the reticence to communicate increases dependency as little information about disease prevention, or controlling the disease when it does arise, is forthcoming. To illustrate the minimal importance attributed to communication between medical personnel and patients little effort is made to assure that medical personnel in Cree communities speak English, the second language of the Cree.

Patients in general, whether white or native, find the patronizing air and lack of communication with medical personnel an anathema. But because of the subordinate and peripheral position of the Crees the contradictions in biomedicine are exacerbated. Cree patients are reacted to with a mixture of discomfort and disdain. Living differently, behaving differently and frequently ill, health workers conclude that Crees are always sick because of their tenacious adherence to backwards customs. As stated earlier, since they relate the high rate of illness among Cree children to the 'bizarre' and assumed 'unsanitary living habits of the Cree' they conclude that there is very little which they as medical personnel can do until Cree change their way of life. And because of their frequent

appearance at the hospital, health workers there have assumed that Crees lack the will to be self-reliant widening yet again the schism between health workers and patients.

In a system which already suffers from lack of communication and hierarchical relations these perceptions by the health workers sharpen the distance between health worker and native client. In this context, there is even less inclination to communicate or encourage health promotion with the mother as they think that she is both incapable of understanding and not interested in accepting responsibility for her children. In consequence they offer little in the way of service or explanation, assurance or sympathy. The result is a personal service dispensed with little personal contact.

By way of summarizing, the links between capitalist social formations and the biomedical system are realized in a number of ways. As just discussed above contradictions along class, and ethnic lines issue directly from the definition of disease and relations dominant in biomedicine in general. In the Cree example this means that they are compounded by the subordinate and peripheral position of the Crees in development, a situation which ascribes the Crees to an inferior position with whites in general (with teachers, government officials, etc.) and not just medical personnel in particular. The manifestations of capitalist social formation in the meaning of disease in biomedicine as practised in Cree communities are: the emphasis on the individual and the exclusion of society from the etiology of disease, emphasis on the curative rather than a preventative approach, and the idea that the traditions and practices of ethnic groups and the working class are a potential source of disease. And the presence of capitalist social formation in the relations in the medical encounter is

reflected by the hierarchical relations between health worker and patient, and the lack of communication between health worker and patient, increasing the dependence of the latter on the former.

Specificity in the Biomedical System

While bearing the contradictions of capitalist social formation biomedicine's relationship to the latter is not one of mere reflection:

> It is possible, indeed likely, that the relationship (of the different components of social formation to capitalist social relations) is a variable one, different at different periods of history and according to the type of cultural production concerned. (Lovell 1980:235)

The point is that capitalist social formation does not intrude to the same degree and in the same way in all the elements of social formation, and indeed within medicine itself. For instance, while biomedicine is dominated by capitalist priorities, medicine in James Bay as elsewhere in Quebec, is different from other capitalist institutions in that it is a service funded by the State rather than being a straight commodity producer.

What we are primarily interested in in this section is the specificity of medicine - the specificity as it concerns meaning construction in disease diagnosis and temporality. For although the paradigm in which medical knowledge is produced is circumscribed by its antecedents in capitalist social formation, disease diagnosis and etiology as well as many of the particular techniques and practices specific to medicine also have their own internal logic. Not only does some of the rationality in science exist independently of capitalist social formation but the internal logic in the medical definitions and knowledge is not stamped equally by the contingencies of capitalist social relations. Regarding temporality we

shall see that both the context in which medicine is practised and the particular period of medical history can also fuel the relations and ideology in medicine. The following two sections then represent our investigation of Proposition 2.

Temporality in the Biomedical System

In this section we will see that the relations and content of biomedicine at this point in its development are also shaped by the power wielded by the medical profession and by the context in which medicine is practised in Cree communities.

Although the government has been subsidizing health care in Canada since 1948, socialized medicine has only affected how medical bills are paid. If anything, the National Health Grants Programme of 1948 and Quebec Medicare of 1971, through the increased allocation of funds to hospitals have reinforced the power of the medical profession and in particular the power of the corporations of physicians. This in conjunction with its organizational control over large numbers of social and technological workers and its control over a vital service means the preeminence of medicine now surpasses that of other professions (Friedson 1976:5).

By virtue of this position medical workers in Canada have demanded and obtained formal and legal autonomy over health care. They define the terms and content of their own work, they play an important role in the evaluation of health care and by assuring that they are the sole source of medical aid, the profession directly influences the demand for its services. They also define the nature of the relationship with their patient. It is authoritarian but mediated by gender, class and ethnic group. The upshot of the hierarchy is that the biomedical worker claims full authority and expects the patients to fully acquiesce to his/her

judgements. In addition to the differential between patient and medical worker there are other important consequences for the Cree communities of the control by physicians. Namely because the emphasis in medicine is almost exclusively on curative care, the hiatus between prevention and curative medicine is widened and diseases requiring technological intervention are accorded more importance than the diseases impinging on the Crees, the diseases of underdevelopment and poverty. At this level the biomedical system reproduces the relations and ideology which medicine shares with social formation.

Context also has an effect on relations and ideology in medicine, with nursing station medicine differing from the medicine practised in the hospitals. As stated earlier there are hospitals at Chisasibi and at Chibougamau, and nursing stations in all the other settlements. Whether dispensed through the hospitals or the nursing station nurses are the main source of biomedical care for most Crees.

Discussions with the nurses reveal that they come north with good, although ill-informed intentions towards native people. While few plan to make long-term commitments to the region, as professionals most genuinely intend to offer what they think is a good service. Before arriving at their postings, however, very few are given concrete information about how the people live, the conditions in the settlements and the problems they are likely to encounter. Language differences, exacerbated by a professional role which precludes close relations (i.e. through no home visits, a limited communication in the medical encounter) with Crees creates an immediate distance bewteen the two groups.

From the outset the nurses in the communities where there are hospitals, retreat into the white community where what they learn about native

people is from whites who are as removed from the Crees as they. Within this context their attitudes to native people are shaped. Our data indicate that biomedical personnel in this context (like other whites in these communities) stereotype and stigmatize the Crees in a manner consistent with that suggested by Szwed (1975) whereby physical, moral and behavioural characteristics of the Cree are exaggerated and then judged as inferior. In the medical encounter the stereotyping translates into an undisguised intolerance and contempt for the natives' cognitive system. Links between medical personnel and the Crees, already tenuous because of the nature of biomedicine, deteriorate. There is no impetus to learn English, forge closer relations, or understand the nature of disease impinging on the Crees. In this situation the meaning of disease and hierarchical relations are reentrenched.

In the communities which just have a nursing station a different situation occurs in that medical personnel are both less isolated and more sensitive to the people. They quickly become aware that standard medical practice must be broadened to incorporate the annual cycle of hunting, fishing and trapping and to address local problems. In the process of trying to ameliorate some of the obvious deficiencies in the biomedical system they modify certain aspects of biomedical ideology and relations. To facilitate communication those who do not know English try to learn on the job. Acknowledging the annual cycle of the Crees they try to schedule their activities to incorporate the influx of people preceeding the period when the Crees go into the bush and following the time when they return. They also quickly become aware of the need for preventative services to deal with the disease profile and demographic characteristics of the Cree population. Limited by lack of personnel, time, training and equipment

their desires to introduce public health and health education programmes are thwarted. And relations between medical personnel and the Crees in the nursing station are said by the people to be more sympathetic and friendly than at the hospital.

The modifications introduced to biomedicine by the medical personnel at the nursing stations narrow some of the contradictions in biomedicine. The meaning of disease has been expanded to include a prevention component, the hierarchical relations between health workers and patients is reduced through improved communication and closer contact, and the organization of services acknowledges the Cree annual cycle. But the contradictions in medicine inhere nonetheless. Rather than addressing the problem of the political and economic determinants of disease, etiology continues to be traced to the individual. And although compassion and friendliness characterize relations between the participants of the medical encounter this does not substantially alter the fact that very little medical information is disseminated thereby perpetuating the dependence on biomedical personnel.

In short, despite the fact that current power of medicine allows it to set the terms and relations of its work it does so primarily within the parameters set by the relations and ideology of the larger social formation. Well consolidated in the medicine practised in the James Bay hospitals, these relations and ideology are slightly modified in the communities where the primary responsibility for health care is the nursing stations.

Codes of Disease in the Biomedical System

To the diagnosis of specific diseases the biomedical system applies its own system of codes which may function independently of or in concert with the ideology of capitalist social formation. It is primarily in the construction of individual disease codes, however, that biomedicine exhibits

characteristics which are determined independently of social formation.

The data referred to below are based on interviews and conversations with nurses at the hospital in Chisasibi and at the nursing station in Mistassini about how they interpret specific disease symptoms. In particular, I was interested in their diagnosis of the five most commonly occuring disorders of children: otitis media, skin infections, fever, gastroenteritis and respiratory diseases. It should be made clear that the data were derived from discussions with and not from direct observation by the researcher of biomedical practitioners at work. Their statements were verified by comparing their remarks with the accounts given by the mothers of Cree children who had used their services.

My data indicate that the logic which underlies the meaning of disease in the biomedical system in Cree communities is predicated on the interplay of three principal ingredients: the age of the patient, the symptoms and a medical standard. Pediatrics texts, community health medicine and epidemiology suggest that a fourth ingredient, context, may also play a role in contributing to the severity of problems. For instance standard of living and environmental conditions are said to affect the rate of mortality from gastroenteritis, while previous disease and nutritional status have been found to influence the likelihood of complications from respiratory infections.

According to the nurses, because children are more susceptible to imbalances during infancy than during later childhood the age of the child is an important factor in the interpretation of symptoms. The data also indicate that symptoms are interpreted as diagnostic signs in so far as they conform to culturally approved criteria for detecting disease. The culturally approved codes upon which the nurses base their judgements are

Medical Codes and General Codes.

Medical Codes, based primarily on signs produced by experimentation in molecular biology, are disseminated via medical texts or within the medical context both of which define the various manifestations of pathology (Engel 1977). The General Code which usually consists of the verbal report by the patient of his/her symptom, is constituted by the medical signs predominant amongst laymen in the society in question (Kahn 1978:19). These medical signs are usually based on changes in physical appearance, or alterations in feelings, functions and behaviour (Engel 1977). The nurses suggest that as members of their own society they are cognizant of their society's shared General Code but they place more credence on signs which have been derived from the Medical Codes. In a situation where the biomedical system has been transplanted and where medical practitioners have not been socialized into the same society, such as in the Cree communities, the General Codes of the indigenous population are considered the least reliable indicator of health and disease.

Based on interviews with the nurses it appears that the relative importance placed on age, symptoms, and medical standards varies according to the disease. With otitis media and skin infections the existence of the pathogen as detected by means of the Medical Code is thought to provide sufficient proof of disease. Age is not considered a factor in determining the presence of either of these diseases. Our data indicate on the other hand, that age, Medical Code and medical standard inform the initial interpretation of fever, gastroenteritis and respiratory disorders. Although fever and gastroenteritis are associated with many diseases, have a number of possible etiologies, and could require a range of treatments, diagnosis is frequently limited to how the age of the patient and his/her symptoms

compares to the medical standard of what is appropriate for the age group.

According to the nurses in actual practice, context, the fourth ingredient is usually excluded from meaning construction. They say that although biomedicine alludes to the role of the context, with the focus on understanding the pathogen in terms of the Medical Code there is little effort to incorporate living conditions or environment into the construction of meaning. Interestingly, however, the nurses state that by adhering to their indices of disease they often misread the symptoms. For in the Cree communities many of the children's disorders which, according to the indices of biomedicine, should have just had a minor impact have very quickly become serious. They say that without years of experience in the communities during which time they can rectify their training their diagnosis is often inadequate. As it stands now, they know that Cree children in general succomb quickly to disease but they do not know how to incorporate this knowledge into their diagnosis of individual patients and specific symptoms. In short, while their texts portray ideas about the various factors which should be considered in the treatment of disease they are not provided sufficient information to adequately do so.

As I did with the Cree medical system I shall use the semiotic orientation to examine the dynamic between the three main components in the biomedical codes of disease. To reiterate, semiotics attempts to explain the activity of signs in relation to their syntactic, semantic and pragmatic functions. The biomedical system has often been accused of confining diagnosis to the semantic function, and in particular to the semantico-referential signs. My data from James Bay indicate that the interpretation of disease by the biomedical system in Cree communities involves all three sign functions but that the semantic and pragmatic

functions reflect a narrower range of meaning than they do in the Cree medical system. And as we shall see, the semantic function in the biomedical system lends by far the greatest weight to the diagnosis.

The syntactic function, which examines the relations between signs, explores that aspect of meaning which is derived from the simultaneous occurrence of a number of diagnostic signs. Having established whether the signs in the cluster exist because of one another, only in association with one another, or independently of the others, biomedical diagnosticians then attempt to determine their semantic function - that is what the sign or sign cluster designates. The emphasis in the semantic aspect of meaning in biomedicine is on the distinctive, biological features, or the semantico-referential characteristics. But rather than concentrating on the consequences of the signs, as discussed by D'Angrade (1976) or on the symbolic aspects as Good (1977) medical personnel remove symptomology from the social field of the patient. Of interest to the health workers is not the connotative ingredients of disease, its perceived seriousness, or the social and symbolic context, but instead the distinctive - that is, observable or measureable - features of the pathogen.

Although most of the attention in biomedical diagnosis is placed on the syntactic and semantic relations, the two are frequently amalgamated with the pragmatic function, with what the sign means to the user, to produce the total meaning of disease. Through pragmatics context is inserted into biomedicine's interpretation of symptoms but the elements it considers sufficient to constitute context is limited. In the pragmatic assessment of symptoms the age of the patient is incorporated into the analysis but our interviews with the nurses reveal that the disease profile of the individual and the community are not included. In short, while the semantic

boundaries of illness are not impenetrable they do not allow a wide range of external input.

The limited semantic and pragmatic functions in biomedicine obtains a static process of meaning construction based on the synchronic characteristics of the symptoms. Emphasis on the synchronic is reinforced by two additional aspects of biomedical diagnosis. Firstly, diagnosis according to the medical history of the patient or horizontal inference, is achieved if the long term medical records of the patient are consulted. Records have not been kept of the complete medical history of the Crees - a medical history which in the case of many Cree children is punctuated by severe and frequent episodes of infectious disease. Secondly, through the exclusion of the General Code from diagnosis the credibility of the patient is denied thereby obviating the communication between health worker and patient and the possibility for reconstructing even an abbreviated medical history. With little communication between medical personnel and patients and with little interest in the General Code, statistical norms relevant in an all together different context, or vertical inferences, provide the framework for most analysis.

Summary

Applying Proposition 1 to the concepts of disease and relations in the medical encounter we observe that biomedicines' links with capitalist social formation are manifested by medicine's hierarchical relations based on class, and ethnic group. The links are also reflected through the etiology of disease which expunges society from definitions of disease and through the treatment of illness, treatment which focuses primarily on curative, individual care. As regards the specificity of the biomedical system, or Proposition 2, we see that despite the power of the medical

profession to set the terms and relations of its own work it does so within the parameters of capitalist social formation. In the Cree communities this means that it reproduces the relations and ideology of capitalist social formation.

The biomedical system does not bear the stamp of capitalist social formation alone, however. For in the semantic and pragmatic functions of disease biomedicine expresses its own system of logic which may function either independently or in concert with capitalist social formation. In the Cree case, however, to the extent that context is omitted from the diagnosis, the codes are inextricably linked to social formation.

FOOTNOTES

[1]Public health activities have not been entirely absent. There is an effort underway to assure that children are immunized, and the people are being screened for T.B.

[2]With the development of native control over the administrative structures in northern Quebec the relative status of whites on reserves is changing.

CHAPTER V

THE ARTICULATION OF THE CREE AND BIOMEDICAL SYSTEMS

Introduction

Now that I have examined the Cree and biomedical systems respectively the task remains to examine their confluence. I am particularly interested in the reaction of the Crees to the interface. The analysis of the conjunction of the two systems, and in particular the definitions of disease, the relations in the medical encounter and the incorporation of biomedical treatment centres on Propositions 3 and 4. Proposition 3 is concerned with the reproduction of medical systems. The hypothesis is that day-to-day experience in social formation constitutes the basis for change but the direction of change is circumscribed by the location of the medical systems in social formation. Through a discussion of the interpellation of subjects I postulate that developments in both the popular medical system and in the biomedical system occur in response to local conditions but as change is shaped by the structural antecedents of the two systems, the discrepancies between the two medical systems inhere. The interpellation of subjects refers to processes by means of which the political, educational, familial, religious and economic structures in social formation transform individuals into subjects, that is into the bearers of specific ideologies, relations and knowledge (Laclau 1977). In this case the result of interpellation is two competing views of how

the medical systems should be designed.

The 4th and final proposition concerns the Crees' interpretation of the biomedical system and their conception of what the medical services serving them should entail. It takes up where Proposition 3 left off. Whereas Proposition 3 maintains that, bounded by the parameters of social formation, change is generated as a consequence of the active nature of interpellation, Proposition 4 suggests that experience in Cree social formation does not exhaust the Crees' conception of what the medical system should include. Moreover, it posits that in the process of interpellation, in the midst of day-to-day experience, people do not necessarily recognize all the contradictions with which they must contend, nor can they specify all their hiatuses of knowledge. Hence, while groups demand that institutions recognize their interests and conform to their experience they do not necessarily imply that the knowledge based on experience in social formation is sufficient to completely constitute their model of improved health services. The point is that the Crees' vision of medical services is fuelled not only by a celebration of Creeness and local common sense but an awareness that the popular medical system is also punctuated by gaps. Through a discussion of Cree breastfeeding and infant feeding practises this chapter will also illustrate the Crees' use of biomedical treatments, methods and pharmacopoeia.

Maintaining that individuals are not passive recipients of social structure I will first identify the processes and locus of change in the Cree and biomedical systems. Following this we will turn to a discussion of the articulation of the two medical systems and the Cree reaction. To address these issues attention will be focused on the relationship between human subjectivity and experience.

Interpellation

I begin with Proposition 3 about change and experience in daily life. In order to establish the structural and conceptual differences between the Cree and the biomedical systems I have presented the interpellation of Crees and health workers by their respective systems as unproblematic. This was done with a structural analysis of the medical systems, an analysis which also served to demonstrate the grounding of medical systems in social formation. While the structural explanations may account for similarity within groups it does not explain the ongoing processes of change and reaction in day-to-day life. With our data, emphasis on the material conditions alone does not explain the processes of change in medical systems alluded to in the discussion of temporality in Chapters III and IV, nor does it explain the reaction of the Crees to the biomedical system. Comprehension of the change and reaction requires a more dynamic perception of the relationship between human subjectivity, structural relations and the development of knowledge.

For Althusser (1971) the element linking subjectivity to structural relations is ideology. In his formulation ideology constitutes individuals as subjects through a four-step process of interpellation in which the subjects' acceptance of their subjection is guaranteed:

> Ideology acts or functions in such a way that it recruits subjects among the individuals (it recruits them all), or transforms the individuals (it transforms them all) by the very precise operations that I have called interpellation or hailing, and which can be imagined along the lines of the most common every day police (or other) hailing: Hey you there!
>
> (Althusser 1971:162)

Central to the historical materialism of Althusser is a critical isomorphism between the structure of material life and the structure of a

society's thought. Within this paradigm the structural mechanisms of social formation, attributed with an existence independent of the will of the people, are perceived as the active historical ingredients (Seidler 1980). Because Althusser maintains that experience and subjectivity are imposed by social formation there is little recognition of the processes of change within social formation. A fundamental feature of dialectical materialism on the other hand presents culture as the site of struggle and change. Placing the emphasis on conscious choice, active will and the role of human agency, dialectical materialism is critical of the Althusserian exclusion of subjective experience which it maintains is the primary mechanism through which subjects enter history.

The pivotal point in the dialectical approach is the active nature of the development of knowledge. Several workers have theorized about the relationship between knowledge and experience in a way which lends meaning to our data. As postulated by contributions from Soviet linguistics and psychology the leap from experience, from the sensory, to the rational is produced collectively in the context of group practice. Volosinov (1973:21) suggests the term 'social purview' to describe the resonant space into which the specific elements of reality enter and are endowed with meaning. The social purview of a group takes in the material prerequisites for its own reproduction, the social relations in which this is accomplished and the symbol systems of the group.

Refining this is the work of Willeman (McDonnell and Robins 1980:175) which posits that although the experience of the individual as determined by his/her place in social formation will influence the kind of ideologies and knowledge they encounter, this knowledge is not necessarily grasped in its entirety - that there could be but partial recognition of the

knowledge of the group. In addition, from the research of Vygotsky (1962: 68) in child development we learn that the concepts derived from cognitive processes although obtained through group practise, are not ossified, changeless formations. Instead, Vygotsky suggests that concepts are changed as a result of problem solving. To this E.P. Thompson (Anderson 1980:28) would add that knowledge is also acquired by living through unheralded processes, 'through vicissitudes and calamities', the implication being that experience inspires a rational assessment of the situation.

From this I propose that partial recognition and problem solving constitute the processes which influence the extent to which the social purview, the discoursive resonant space, is filled exclusively by the knowledge and ideology of the group. I will now apply these processes to the disjuncture in knowledge and ideology in the Cree and biomedical systems.

Beginning with the Cree situation we recall the vitality of the domestic mode in continuing to structure relations both within the subsistence sector and without. As disclosed in Chapter III our data indicate that these relations, the dual modality of sharing and self-reliance and cooperation and autonomy, also dominate relations in the medical encounter and some of the definitions of health and disease. There is, by way of contrast, much less uniformity in the degree to which Cree medical knowledge - that is the local pharmacopoeia, techniques, codes of disease and etiologies - informs the current Cree medical system.

I account for the uneven application of Cree ideology to the definitions of health and disease and the jagged awareness of Cree medical knowledge in the following manner. Although the JB & NQA has resulted in more people spending more time in the bush where the opportunity of

enculturation is greater there are not the same (or the equivalent) links in the bush and in the settlement reinforcing Cree medical ideology and knowledge as there are reproducing the social relations of the domestic mode. Buttressing the social relations of the domestic mode in the bush and in the communities is their importance at many levels of social organization. In contrast, the relevance of the ideology and knowledge of the popular medical system has been eclipsed by the debilitating infectious diseases of the 20th century against which the popular medical system could provide very little defense. In addition, relations between generations are truncated as the children are spending more time at school, and less time in the company of the people who are cognizant of the Cree medical system. Situations arose and continue to occur in which the people were, and are, unsure how to apply the popular medical system. Many are unsure about the extent to which the popular medical system can even be applied to some of the problems. In comparison the treatments of the biomedical system have often appeared to be far more effective. Exacerbating this is the fact that Cree medicines are relatively more difficult to procure.

There are exceptions of course. Goose hunting, a twice annual event providing some of the Cree with a year round supply of geese, continues to be the source of a medicine which is both accessible and thought to be effective in the treatment of sore ears. In addition, many of the codes which the people apply to the interpretation of disease also continue to be distinctly Cree as advice and information is not disseminated by the nursing station and hospital staff. Fuelling the credibility of the popular medical codes is the fact that some of the codes (i.e. for gastroenteritis and respiratory disorders) have been more effective in diagnosing

the symptoms of potentially dangerous diseases than some of the codes of biomedicine. On the other hand, because of biomedicine's successes in treating illness, and because of the decreased transmission of medical knowledge and the reduced credibility of the traditional medicines the little advice forthcoming from biomedical personnel is ascribed much importance.

While Crees are emotionally attached to the land and to Cree culture, partial recognition of certain aspects of the cultural heritage and different approaches to problem solving impinge on the sovereignty of Cree culture. The processes of interpellation in the current context have resulted in Crees continuing to adhere to the relations and some of the ideology of the popular medical system but not to all the medical knowledge (i.e. the pharmacopoeia and techniques). The net result of these factors is the incomplete transfer of Cree medical knowledge and ideology. The effect is the domination of the present Cree medical system by the relations and ideology of the domestic mode and the widespread incorporation of biomedical treatments.

At the same time change has occurred in the biomedical system as practised by the nursing station personnel. The same processes of problem solving and partial recognition are at work here. Being isolated and having closer contact with the Crees they are more inclined to reevaluate the conventional roles in the medical encounter. And the combination of close contact with the people and full responsibility for local health care inspires a greater interest in understanding the problems in the settlements. In the process they often become acutely aware that their formal training and specific mandate for health delivery is inadequate for the task. Regarding the understanding of disease in the Cree communities

it is thought that the medical codes should be expanded to include the context component. And in the face of reducing the high rate of infectious disease their conclusion is that the most obvious gap in their knowledge and mandate is in the area of public health and health education.

As discussed in the section of Chapter IV on specificity the upshot is that relations in the medical encounter are modified but not transformed - that is nursing station personnel are more friendly but not more informative. Health education programmes as conceived of by the nursing station personnel continue to stress the responsibility of the individual and not the important area of social medicine. Needless to say, total control by the secondary hospitals and lack of adequate funding thwarts the implementation of public health programmes despite interest in them by the nurses. And there is no clear idea how to incorporate context into the diagnosis of specific disease episodes. The situation with health practitioners at the James Bay hospitals is even worse. Being further removed from the people and having a clearer mandate for curative medicine the hospital has been insulated from the self-criticism of the nursing station personnel.

In summary then, as postulated by Proposition 3 the process of interpellation by the medical system is a dynamic one involving problem-solving and partial recognition of the dominant ideology and knowledge. As a result of the active nature of the constitution of subjects, both of the medical systems in the Cree communities have undergone adjustments. Both systems concern themselves with the health problems of the same people, in the same place, at the same juncture but even with the changes each continues to be structured differently. The approach to amelioration by nursing station personnel, while an improvement over no interest at all,

is restricted by their formation in and ultimate control by the biomedical system. The Cree medical system is also bounded by its determinants from Cree social formation but current conditions have eclipsed the reproduction of much of the knowledge and some of the ideology.

The remainder of the chapter will detail the interface of the two systems.

Articulation

Because medicare removes the economic barriers to obtaining clinical health care, the government claims equality in the Canadian health services (Crichton 1981:244). Such a claim overlooks the fact that the biomedical services are neither equally distributed, nor are they organized for local effectiveness. Moreover, in exporting biomedicine to native groups in general and to the Crees in particular there is no provision for incorporating the special needs of the people - as if one standard approach to medicine is sufficient for all. Nor is there any acknowledgement in biomedicine of the possible existence and relevance of local systems of medical thought. Rather, the tendancy is to assume either that the receiver group has no medical system of its own or that its medical ideas are so thoroughly steeped in superstition that they should be ignored. As characteristic of the biomedical system in general then, the Cree user is almost completely ignored in the planning and implementation of services. The result is that the health services are accused of being blind to some of the physical and psychological needs of its clients.

Processes of interpellation of the Crees by the popular medical system play a major role in informing the Crees' perception and use of the biomedical services. I will address the articulation of the Cree and biomedical systems in terms of the (1) definition of disease and relations

in the medical encounter, and (2) the incorporation of the treatments of the biomedical system by the Crees. The first is the domain where there is the most continuity both within the Cree medical system, and between the popular medical system and the relations and ideology of the domestic mode. The second is the area where there has been the most change, where the knowledge, ideology and relations of the domestic mode have had the least influence. To illustrate the latter I will use as an example breastfeeding practices among the Crees.

Engaging with Proposition 4 about the nature of the articulation this section argues that experience in social formation catalyzes and moulds the Cree conception of how the medical system serving them should be constituted. Experience does not however automatically equip them to recognize all the contradictions in the biomedical system nor does it immediately enable them to identify some of the crucial areas in children's health where change should occur.

In order to interpret the Cree response to the biomedical system I call upon, but qualify, the work of Gramsci (1973) and E.P. Thompson (Anderson 1980). Gramsci's division of experience into three levels of response is useful for illustrating the Cree perception of the articulating medical systems. Within his paradigm the first level consists of a common sense response, the second is composed of an awareness and criticism of the situation rather than passive acceptance, and the third is made up of self-reflection, that is of a criticism of one's own conception. Gramsci maintains that knowledge based on a common sense understanding will not evoke the 'higher conception of life' necessary in the mobilization for change. Instead, the impetus for change is traced to the critical relationship people develop to experience. He goes on to suggest, though, that

as people become integrated into the structure of the dominant group (including the medical) they become aware of the fundamental and epistemological conflicts. The consequence is the reevaluation, the challenging of the oppressive elements of the larger system, and a desire for new forms.

By the same token, E.P. Thompson (Anderson 1980:3) argues that the collective experience of a group is converted into consciousness by the identification of their particular interests as against those whose interests are different from their own. In the process, the ideology of the dominated groups questions the fetishized appearances in capitalist social relations. Fetishism is the form in which capitalist social relations present themselves. It is manifested in such a way that the relations of domination, as derived from the social relations of production, are blurred by the assumption that the forms of social relations are equal (McDonnell and Robins 1980:164).

Applying the views of Gramsci and Thompson to the Cree reactions to the articulation of the two medical systems we will observe that the Crees exhibit both level one and level two of Gramsci's three levels of response. We will see that their reaction to the treatments prescribed by biomedicine (as in the breastfeeding example) conforms to level one, the common sense response. Uncritical and unself-conscious, this component of the Cree reaction perceives the treatments and the pharmacopoeia of the biomedical system as the more efficacious of the two. Their response to the social relations in the medical encounter, however, is one of sharp criticism rather than passive acceptance. And their response to biomedicine's definition of disease in situations where it conflicts with their idea of common sense (as with gastroenteritis and respiratory diseases) and places

the health of their children in jeopardy also elicits strong condemnation.

In their criticism of the social relations, ideology, and some of the codes of disease in the biomedical system the Crees are questioning the oppressive elements of the larger system, as postulated by Gramsci. Similarly, as suggested by Thompson, they are rejecting its fetishism. But to suggest that they reject all the oppressive elements or all the fetishism is misleading. In discussing the nature of knowledge which is derived from experience E.P. Thompson acknowledges that experience is interpreted in cultural terms, that is, through cultural traditions, value systems, and ideas. And yet he goes on to imply that experience is sufficient to ensure an adequate understanding of the subject at hand:

> Experience is valid and effective but within determined limits: the farmer knows his seasons, the sailor knows his seas - but both remain mystified about kinship and cosmology.
> (Thompson cited in Anderson 1981:27)

This faith in the ultimate rationality of experience is questioned by both theory and practise. Postulating that the historic location of knowledge in a mode of production and a particular technology delimits how issues are resolved, Gouldner (1976) argues that the rationality of knowledge does not reside in its practise but in the rules, in the internal culture which is acknowledged by the group as consistent and binding. This being the case, the discourse could be internally logical but its conclusions not necessarily complete, logical or even the best for the circumstances.

In this situation this is palpably the case. Although the Cree medical system is internally logical both in terms of its codes, its expression of Cree social formation, and criticism of the biomedical system my data indicate that the Crees themselves have decided that some of their

own solutions to medical problems are not necessarily complete, logical or even the best for the circumstances. Furthermore, as the breastfeeding data will indicate, subjective experience does not automatically identify all the contradictions in the biomedical system. From this I would suggest that Thompson and Gramsci over-estimate the role attributed to subjective experience in the interface of two systems. Rather the response by the Crees to contradictions is informed by subjective experience in conjunction with the objective conditions within which it is rooted - a conjunction which results in some of the contradictions being more apparent to the Crees than others.

In order to support these claims I shall proceed with a presentation of the data dealing with the Cree response to the definitions of health and disease in the biomedical system and to the relations in the medical encounter.

Relations in the Medical Encounter

Until recently equality and reciprocity were entertained by Crees as the idiom of relations with the white man (Scott 1982:51). According to Scott, if an imbalance of exchange was recognized it was expressed in terms of the Crees being overly generous rather than the white man being greedy or unfair. The theme of reciprocity with the white man, however, was said to have been severely strained during the 1930's. These were years of severe game shortages, years when the H.B.C. reduced credit to the hunters many of whom later starved in the bush. The later introduction of welfare by the government was welcomed as a gesture which affirmed the attitude of reciprocity (Scott 1982:53). The notion of the white man as an exchange partner in good faith, however,

> . . . was ruptured by the James Bay hydro project. . . . The court actions and negotiations of the 1970's featured an openly adversary relation of Cree and government. Economic guarantees and benefits were extracted with great difficulty, a general disgrace from the standpoint of egalitarian ideology. (Scott 1982:53)

The result of the court case over the hydro project was that the Crees began to interpret their ideology of egalitarian reciprocity as the main cultural difference between themselves and the whiteman. While Crees recognize the differences in ideology and relations between themselves and the whiteman, they do not necessarily accept the pre-eminence of the relations and ideology of the latter in the institutions serving them. In particular they definitely do not accept them in the biomedical system.

There is great dissonance between the biomedical and popular medical systems over what should constitute relations between patient and health worker. The conflict represents the impact of the three main determinants of biomedicine on the Crees.[1] On the ground this translates into a situation where the dominant relations of the Cree medical system, autonomy and cooperation, are contradicted and replaced by relations of dominance and dependence.

As mentioned earlier, the effect of the dominance by health workers in the communities which are served by nursing stations is mitigated by extenuating circumstances which render the nursing station personnel less isolated from the Crees than their counterparts at the James Bay hospitals. The difference is that the relations with nursing station staff are more friendly. The closer relations between the latter and the Crees, while making contact more pleasant than at the hospitals, does not however measureably alter the nature of the unequal relations in the medical encounter.

Using their ideology of egalitarian reciprocity as a point of reference, our respondents note several discrepancies in the relations of the medical encounter between the two medical systems. They state that biomedical personnel, in contrast to the Cree healers, are neither as available nor as cooperative as the Cree medical system espouses. It will be recalled that to the Crees healing is considered synonomous with helping. The following experiences are hence in complete contradiction to what Crees consider proper behavior for health workers:

> The first time my baby had pneumonia I went to the doctor for help. It was the middle of the night and I had done what I could and what my mother could. By that time the baby could no longer move or even cry. We were very worried. When we went to the doctor the nurse told us that we could not see the doctor until the next day and she sent us away.
> (Interview 65)

> A baby who is crying and crying could just be hungry, or it could be indigestion but it could be much more serious. A mother has to find out. She does not want it to cry to death so if she does not know what is going on the nurses should be ready to help her. I can't understand why they just send her away without looking at the baby first.
> (Interview 57)

> My baby was very sick. He had been having convulsions and I wanted to know what was going on. But when I got to the nursing station the nurse said that it was closed until the next morning. That's not the way you're supposed to treat people. I was so mad that I kicked the door in and had to force her to take a look at him.
> (Interview 53)

In addition many find the relations in the biomedical system patronizing and bereft of compassion. All decry the impersonality. But it is the absence of cooperation resulting from the lack of communication between Crees and medical personnel which, according to my data, constitutes the major problem in relations in the medical encounter. Problems

with communication were registered in two ways. Echoed urgently time and time again, the major point of contention was that biomedical personnel do not show respect for the diagnosis by the Crees of their children's disorders or take their explanations very seriously.

> Sometimes the people will tell the nurses or doctor what the child has and they won't listen. They don't listen to what the people have to say. In this way they don't treat the people very well. They seem to think that we don't know anything.
>
> (Interview 36)

> The nurses don't believe the young mothers. My baby had been vomiting and vomiting but the nurses doubted it. Then when they found out that the baby needed an operation they had to believe me.
>
> (Interview 39)

> The doctors and nurses seem to think that the people don't understand anything. The people can understand. We're the ones who have been watching our children. We're the ones who live here.
>
> (Interview 46)

Knowing that certain diseases have serious consequences and that infants living in the settlements are particularly susceptible to illness, mothers say that they find it humilitating and insulting that they have to insist that their concerns be taken seriously. They fear that their children's health may be placed in jeopardy and resent that their knowledge of both the problems in the village and the condition of their child is considered insignificant.

The second major complaint is that medical personnel 'talk over our heads' and give the people nothing in the way of medical information.

> The nurses talk over our heads in French and won't tell us what they are saying. My friend was there with her baby who was sick. They were complaining about her. They were also talking about sending the baby out (south to the hospital) but they did not tell the lady that. They didn't know that she understood what they were saying.
>
> (Interview 30)

Biomedical personnel see the Crees' interpretation of various symptoms as a major problem, but only a few of the mothers interviewed had been told why their interpretation was invalid and the consequences of not changing it. This greatly interferes with the goal of Cree for autonomy and self-reliance. All our respondents note that they are rarely ever given any information about the cause, nature, or prevention of the disease for which they are seeking help. Some never are informed about why their children have even been hopsitalized:

> I would like more information and explanations from the nurses. I don't like it because unless I really ask they don't tell me what is wrong. Sometimes they don't even tell me what sicknesses my children have. They just give out medicine.
> (Interview 29)

> No one ever told me about running ears. I don't know why they go like that with my little boy. The doctor just said to give him the medication every time it runs.
> (Interview 32)

> I don't know what makes the babies sick. Nobody tells us very much unless we really force them. But most people are too shy to insist.
> (Interview 40)

> People don't like to go to the hospital unless there is something really wrong with their child. We don't like the way the doctors and nurses treat us there. We go because we are worried about our children but we don't feel comfortable. Some of the people are afraid of them. Sometimes they're rude to the people. They don't tell us what is wrong with our children when we do go to them.
> (Interview 42)

> Sometimes the children are put in the hospital and we are never told why.
> (Interview 44)

In addition, all the respondents stated that they are never explained why they should take drugs in the manner prescribed and what would happen if they did not. And needless to say results of tests are never relayed to them either.

Cree mothers, like mothers elsewhere, seek the help of biomedical personnel because their children are ill. From the health workers they want the necessary medication but they also expect advice, assurance, respect and cooperation. At a minimum they would like to be taken seriously. When such respect is not forthcoming Cree mothers, again like their counterparts elsewhere, are extremely dissatisfied. The dissatisfaction is compounded on the part of the Crees, however, by the fact that the relations in the biomedical encounter completely contradict the precepts underlying Cree social relations. Cooperation and sharing is thwarted through the relations of domination, and self-reliance and autonomy are undermined by the lack of communication. The basic rules governing Cree social behavior have been violated.

As a result of their experiences with the biomedical system Crees question the competence of many of the health workers, concluding that the Cree villages are the dumping ground for bad medical personnel - for people who are only interested in making money.

> The nurses and doctors don't care about the people. They're lazy. They just want to come here and make money and leave. They don't care about anything else.
> (Interview 31)

More serious than that, however, many of the people become afraid to talk to the medical personnel:

> Often the nurses can speak English but they won't. They talk French even though I can't understand. I dont't ask what is going on because I feel too shy. Most of the time the nurses seem in a big hurry so I'm afraid to bother them.
> (Interview 32)

> While we are at the clinic we are often afraid to ask the nurses things. Sometimes because they seem like they're in a big rush. It makes me shy and I give up trying. Some of the people don't bother to try because no one tells you anything anyways.
> (Interview 46)

And, in certain cases, especially when dealing with hospital staff, Cree

attribute the problems which they encounter to Indian/white relations. They interpret the 'being talked down to', the not being taken seriously, not getting information or explanations and any other problem with the medical staff as a plain and simple dislike of Indians. They are more convinced that this is so from the following kind of experience:

> Even when Indians are in the waiting room and have been waiting for appointments they are kept waiting. And if a white person comes in they are served first. Each person should have to wait their turn whether they are Indian or white.
>
> (Interview 35)

While Crees cite their ideology of egalitarian reciprocity as the main cultural difference between themselves and the whiteman they think that medical behavior, regardless of whether it is practised by Crees or non Crees, should be characterized by sharing and cooperation. It is thought that if these relations are not the dominant relations in the medical encounter it is because they are dealing with either incompetent or racist health workers. That they are forced to contend with incompetent health practitioners is further proof to the Crees of the breakdown of reciprocity between themselves and the government. For it is the opinion of those interviewed that the government generally sends its least experienced, least trained and most poorly equipped medical personnel to their communities.

The Definition of Disease

Major discrepancies also exist between the two medical systems over the diagnosis and meaning of disease. I trace the disjunction to the origins of the medical systems in different social formations and to their different classifications for disease. The meaning of disease differs in two respects: in terms of (1) the codes employed to diagnose symptoms, and in terms of (2) the etiology of disease.

Both systems recognize abnormalities and deviations from the normal state but precisely which symptoms are thought to require medical attention is another matter. In Chapter II and Chapter III the definition of disease by the two medical systems was explained in terms of the syntactic, semantic and pragmatic functions of particular symptoms and symptom clusters. Within this framework it was demonstrated that the semantic and pragmatic functions in biomedicine, as practised in Cree communities, exhibits a much narrower range of meaning than the comparable sign functions in the Cree medical system. In the Cree villages the semantic aspect of disease in biomedicine is focused primarily on the measureable biological attributes associated with the symptoms. By way of contrast, the semantic element in the Cree medical system emphasizes the observeable biological features plus the anticipated consequences of the disorder and the symbolic meaning associated with children and the role of women. In addition, while the pragmatic function of biomedicine is confined to a consideration of age, its analogue in the Cree medical system includes age, as well as the disease profile of the individual and the community.

There is a divergence over the etiology of disease as well, with the Cree medical system defining illness as being both individually and socially produced. As practised in the Cree villages the biomedical system, in contrast, overlooks the origin of disease in society. According to our data the differences in the etiology of disease do not, however, pose a problem in the medical encounter for here communication between health personnel and Crees is so limited that the participants are not aware of each others' etiologies let alone sensitive to the contradiction between them. Conflict here is as yet quiescent. Moreover, with the new illnesses there is uncertainty among Crees as to their cause thereby further mitigating

the likelihood of conflict with medical workers over this aspect of meaning.

Where there is the greatest discord over the meaning of disease is in the area of the classification of disease - that is in the differences between the semantic and pragmatic functions of the two medical systems. Galvanized by the high rates of infant mortality in the settlements from some of the infectious diseases Cree mothers are sensitive to the effect of particular symptoms on specific individuals depending on their previous medical history, and on specific age groups. All our respondents state that experience has taught them that with infants, for instance, unless they respond immediately to the symptoms of gastroenteritis and some respiratory infections, complications could easily develop. A sudden fever, unexplained sweating, frequent bowel movements, impaired breathing, etc., will generate instant concern.

> We have to act quickly as babies die here from symptoms/diseases which should not have been serious.
>
> (Interview 68)

> Sometimes the doctors/nurses are sleeping at night. Doctors have to sleep too but when we know that something is wrong they should not tell us to come back the next day at 2 p.m. Babies get too sick too fast to wait until the next day.
>
> (Interview 44)

By way of contrast, as stated in Chapter III, the symptoms of otitis media and skin infections are not perceived as having serious consequences and are not interpreted as warranting an immediate response. Most of the respondents stated that once the children are no longer babies they usually attempt to treat colds and respiratory disorders, and diarrhea, at home themselves. It is when these symptoms do not respond to their intervention that they usually endeavor to obtain outside help.

Biomedical personnel, on the other hand think that the biomedical services are overused for symptoms of little 'objective' significance and underused for diseases such as otitis media and skin infections, which should generate assiduous attention. But in the opinion of the respondents the definition of disease by biomedical personnel and their lack of understanding of community health problems has medical consequences in that it prevents them from recognizing, until more complicated, diseases which are not problematic in most southern settings but which are known by the Crees to be potentially serious. Almost all the respondents cite examples from their personal experience of seeking help from biomedical personnel for these symptoms of 'little objective significance' and of being turned away without explanation and without an examination of their child, on the grounds that the symptoms did not warrant reaction.

> The doctors are not very good for diarrhea. They don't seem to know how to treat that. Without ever examining the baby they just tell us to discontinue breastfeeding the baby and give it a special diet. But after a couple of days like that it sometimes ends up in the hospital.
>
> (Interview 46)

> We don't like to go to the hospital. We only go when we really have to. And even then sometimes they don't examine the baby, even though there is something seriously wrong like diarrhea.
>
> (Interview 45)

> One time my little girl would not stop coughing. I had tried everything and did not know what to try next. I did not want to let it get worse. I wanted them to be sure that it had not spread to the lungs. The nurse did not do anything. She sent us away with no advice and no medication, nothing.
>
> (Interview 34)

> Often there is no one at the hospital except young inexperienced doctors and nurses who know by the books and not by experience. They send you home if your baby is not in their books.
>
> (Interview 30)

> The nurses are not very good. We only go when there is something really wrong with our children. We do not like to go very much. Even when we know that there is something wrong, and what is wrong, they send us away sometimes without even examining the child. We have been watching our children, we know when they are not normal but they don't like to listen to what the mothers have to say.
>
> (Interview 44)

The mothers state that many of these situations have ended a few days later when they have had to rush their children off to the hospital in Chisasibi or Chibougamau because the symptoms have developed into gastroenteritis or pneumonia.

> One time my little girl was having a hard time breathing. She had a bad cold. I took her to the hospital where the doctor did not even examine her or tell us what we could do. But I thought that it was serious. The next day she was having even a harder time breatning - her head was back and her eyes looked different. I went back to the hospital again and this time they had to send her to Montreal.
>
> (Interview 31)

> My baby had been sick with a cold for two weeks and the nurses just asked if the baby had a fever. I said no but said that the baby was crying all the time and would not stop. The nurses said that there was nothing wrong but the old ladies knew - they had tried all they could to make her better but still she would not stop crying. We returned to the hospital everyday for a month. The baby was still sick and the nurses still did not do anything. They were complaining that we were always coming to the hospital. Finally one of them examined him and found that he had pneumonia and needed to stay in the hospital.
>
> (Interview 36)

These experiences have prompted ripostes by the respondents to the effect that:

> Some nurses and doctors seem to think that they have to wait until our children are almost dead before they begin to do something.
>
> (Interview 41)

In anticipation of the reaction of biomedical personnel some parents at their own expense take their children to hospitals elsewhere. Some have stopped going to medical personnel all together:

> One time my little boy had a flu with a high fever and he was sweating a lot so we brought him to the hospital. They did not give him anything, and they did not say what to do. I went home and tried everything I could: I gave him cold baths and some medicine that I had at home. After that I did not bother taking my child to the hospital because the people there are too lazy to help.
> (Interview 31)

As with the reaction to the discrepancy in the relations of the medical encounter Crees interpret the conflict in the diagnosis of disease as a problem with health workers rather than a problem with medicine. And as in the case of the medical relations they conclude that medical personnel who respond inadequately do so because they are not very good. Tracing the problem to a lack of common sense on the part of the health worker rather than to the medical system itself Crees see the problem as being one of incompetence, inexperience and laziness.

In summary, the last section has dealt with that aspect of the articulation between the biomedical and Cree medical systems in which the Crees' perception may be coloured primarily by the relations and ideology of the domestic mode and the popular medical system. These antecendents constitute the basis for conflict over the definition of disease and the relations in the medical encounter. Regarding the relations of the medical encounter the Crees have two major complaints both of which centre on problems in communication. The first is that health workers show little respect for the diagnosis and explanations by the Cree mothers of the children's disorders, and the second is that medical personnel offer the Crees little in the way of medical advice and assurance about the disorders for which

they seek help. Concerning the definition of disease, while there are contradictions between the two systems in all aspects of meaning, conflict manifests itself primarily in the area of disease codes. Needless to say, it is the opinion of the people that the medical system serving them should reflect their views concerning the definition of disease and medical relations.

As a result of the discord Crees have begun to resent and fear as well as distrust the competence of the health worker. The interesting thing is that the situation is not seen by the Crees as a problem with the biomedical system itself, but rather as a by-product of either unequal relations between whites and Indians, or of Cree communities being the repository of inexperienced and poorly trained medical personnel. In speaking out they are denouncing their mistreatment and decrying the possible dangers to the health of their children.

Incorporation of the Treatments, Pharmacopoeia and Methods of the Biomedical System

The Crees are most amenable to the treatment side of the biomedical system - to the pharmacopoeia, techniques and methods. Reasons for this were put forth earlier in the discussion of the interpellation of the Crees by the popular medical system. In keeping with Proposition 4, as we ill see in the breastfeeding example, the incorporation of the methods of the biomedical system proceeds despite the fact that the method may manifest the contradictions of capitalist social formation and despite the fact that they may exacerbate, not ameliorate disease. This section then is concerned with that aspect of the Cree response to the biomedical system in which there is the least continuity with the popular medical system - in which the processes of interpellation have rendered the Crees the most

receptive to the biomedical system.

In the absence of medical information from biomedical workers what Cree mothers know about medicine is derived from their own experience and the advice from the older people. The older Crees are central in the initial interpretation and diagnosis of symptoms and also play a role in treating illnesses which can be controlled at home. But they see their sphere of influence as quite separate from that provided by the biomedical services. In their view the biomedical system excels in the treatment of disease - both the diseases which are new and unfamiliar to them and also many of the disorders for which they utilized natural remedies in the past. Stating that many of the treatments are more effective than their own they often recommend that mothers seek the attention of biomedical practitioners.

> The old ladies think that at the hospital they can do something for all kinds of problems, so they tell us to go there for all kinds of sickness.
> (Interview 36)

The complaints directed at biomedical services are hence not a criticism of the pharmacopoeia and technology at the disposal of the health workers. On the contrary, for the most part the people think that when prescribed the medicine has been effective in curing their children.

> The doctors know what is good for us and we should listen, just like we should listen to the older people. We should listen because they know more than we do.
> (Interview 43)

> Usually I try to follow the doctor's instructions about the medication because I know that what the doctor tells us usually helps.
> (Interview 24)

> I was worried about my child and did not know what to do so I followed their instructions.

> But I didn't really understand what was going on. I only know that what the doctor says usually helps.
>
> (Interview 39)

Deferring to the judgement of those who have skills and knowledge about medicines, the criticism of the biomedical system is over how the services are dispensed and what is considered a disease. Problems do arise however, particularly in the areas where the advice is diametrically opposed to that given by the old people. The treatment for fever is the most notable:

> I wonder why the doctor tells us to do certain things. Like when babies have a high fever why are we supposed to give them cool baths to get out the fever. The old ladies like to wrap the babies with fever up warmly in blankets so that the fever will come out faster and the baby will get better faster.
>
> (Interview 24)

> Sometimes we don't follow the instructions they give us for fever - like giving the baby cold baths and cool clothes. The old people would never do that. They would give the babies with fever warm baths until the fever comes down.
>
> (Interview 36)

There is also some confusion about the best approach to diarrhea:

> The doctor gave me a special diet to give to my baby with diarrhea. I threw it out because they didn't even examine the baby to see what was wrong. The baby just eats breastmilk and the old ladies say that is the best thing that babies can get.
>
> (Interview 45)

> When my baby had diarrhea they told me about a special diet. But that food did not seem suitable for my 2 month old. I didn't see how my baby was going to eat peas and carrots.
>
> (Interview 41)

In each of these instances Cree mothers are not sure who to listen to.

The same uncertainty by Cree mothers about method also applies to practices of the biomedical system which are deleterious to health. The

biggest problem in this regard concerns breastfeeding. The Cree medical system advocates breastfeeding. The biomedical system in the Cree communities, on the other hand, tacitly encourages bottledfeeding. In this case the biomedical system is the one generally subscribed to by the young Cree mothers.

Breastfeeding

In the past all Cree women breastfed their children, just as today the older Cree women continue to recommend the practice. But studies in James Bay report an inter-generational trend away from lactation (Romaniuk 1974; Marshall 1982). This pattern is manifested in two ways: fewer women are breastfeeding and those who do report that they lactate for a shorter period of time. Unlike the decline in breastfeeding in Latin America and Africa (Bader 1976) the situation in northern Quebec was neither directly precipitated nor perpetuated by the bottlemilk companies. The origin of bottlefeeding may be traced to the presence of medical personnel in the James Bay hospitals who, during the 1960's and 1970's, convinced the women to discontinue breastfeeding. Now inspite of the fact that health workers say that they condone breastfeeding the trend downwards continues.

Consistent with Proposition 4 about the incorporation of the methods of the biomedical system despite their contradictory nature, and their deleterious effects on health, this section argues that the continuing decline in breastfeeding is iatrogenic. Many of the Cree mothers are not sure which is better for their child, breastfeeding as commended by the older women or the bottle as dispensed by the biomedical personnel. Having great faith in the treatments of the biomedical system and taking seriously the advice from biomedical practitioners about methods of

maintaining health and treating disorders they do not suspect that in following the advice of biomedical personnel their children's health could be endangered.

A biocultural model will elucidate how the contradictions in the biomedical system inform Cree women's decisions not to breastfeed. Consistent with the general orientation in this thesis the contradictions will also be seen to be fuelled and intensified by the subordinate status of the Crees in development.

The consequences for health of the change in infant feeding practice is serious for it not only exacerbates the high incidence of disease but its alternative, bottlefeeding, may actually produce disease. Briefly, human milk contains immunological ingredients against bacterial and viral infection. Colostrum, the protein rich fluid which precedes the true milk contains antibodies which protect the infant during the first six months of life. In addition, the breast sugar lactose provides a natural immunity against bacterial infection of the mouth, stomach, and intestines. The sugars in cows' milk, on the other hand introduce disease provocative agents without furnishing any prophylactic advantage (Pryor 1976). Aggravating this is the fact that many of the Cree mothers dilute the bought milk with a boiled porridge solution to which corn syrup has been added producing a mixture which is excessively high in sugars and starch and deficient in protein.

A direct relationship is hence recorded between native patterns of bottlefeeding and high rates of infant morbidity and mortality (Graham-Cummings 1968; Scrimshaw 1968; Schaeffer 1971; Hamilton 1975; Manning 1975). Of particular concern is the association between bottlefeeding and the gastroenteritis/respiratory disease complex, the diseases which account

for much of Cree infant mortality. As illustrated by Graham-Cummings' (1968) survey of Canadian Indian infants, seven times more of the bottlefed infants died from pneumonia and six times more died from gastroenteritis. As would be expected the bottlefed children are also hospitalized more and for longer periods of time than their breastfed counterparts.

(1) Incidence of breastfeeding

The statistics on breastfeeding in Mistassini reflect the pattern exhibited elsewhere in James Bay. From research conducted in four James Bay communities Romaniuk (1974) reports a decrease in lactation over time. The percentage of first borns breastfed was 75% in 1960, compared to 96% in 1940. My data indicate that since 1979 only 55% of the first borns have been breastfed. As illustrated by Table I there is a vast discrepancy in the breastfeeding patterns of the settlement and bush living women, with the highest percentage of nonbreastfed children found among the infants of the young settlement living mothers. For instance, only 31% of the first borns of the 24 years and under group of women are breastfed compared to 75% of the first borns of women of the same age who go into the bush.

92% of the decisions not to breastfeed were based either on the assumption that, because it is dispensed in the hospital, bottlemilk is the superior product or that the respondents would not be able to successfully breastfed. Of the 92%, 41% stated that they knew nothing about the mechanics of breastfeeding, or of its relationship with disease while 51% stated that they had initially favoured the idea of breastfeeding but were deterred by the possibility of insufficient milk or sore nipples. A small number, 8%, said that they bottlefed because they lacked time to do otherwise as they were either working, taking a course or had too much work at

Table I

Percentage of Children Breastfed by Bush Living Women Compared to Settlement Living Women (Classified by birth order of children and age of women)

Age of the Mother		Percentage of Children Breastfed						Sample Size	
		1st born	2nd born	3rd born	4th born	5th born	last born	Mothers	Children
24 years and less	B*	75	62				67	4	9
	S*	31	44	50			33	16	34
25-29	B	75	50	86	50	25	33	9	41
	S	53	59	50	50	50	53	19	59
30-39	B	56	67	56	57	50	56	9	53
	S	60	40	40	80	60	67	6	41

B* - Living in the Bush
S* - Living in the Settlement

---

home. In all these cases bottlemilk seemed like the most reliable alternative (Marshall 1982).

(2) Duration of breastfeeding

The duration of lactation has similarly decreased. 45% of the mothers between 1940-49, 33% of the mothers between 1950-59 and 23% of the mothers between 1960-68 breastfed their first borns for nine to fifteen months (Romaniuk 1974). Pushing the spiral downwards, my data show that only 12% of the children born since 1979 received breastmilk for an equivalent period of time. In Mistassini most of the children breastfed since 1979, in fact 54%, received breastmilk for three months or less (see Table II). Of these as many as one half were weaned within the first three

weeks. Just as fewer of the young settlement living mothers breastfed their infants, so too the young settlement living mothers breastfed their children for the shortest period of time. Similarly, the discrepancy between infant feeding practises in the settlement and in the bush inheres as well over 50% of the latter breastfed their babies for four months or more. By way of contrast, as just stated, over 50% of the settlement living mothers who breastfed had stopped within the first three months.

Table II

Percentage of Children Who were Breastfed
(classified by duration of breastfeeding)

Duration	Number	Percentage
3 weeks and less	9	29
1 to 3 months	8	25
4 to 8 months	6	15
9 to 15 months	9	27
16 to 24 months	1	4

The most frequently cited reason for the abbreviated period of lactation was insufficient milk. All the women who stopped within the first three weeks stated that they did so for this reason. The data indicate the problems with the milk supply revolved around misunderstandings about such aspects of the lactation process as when the true milk should come in, how to establish a good milk supply, and the mechanics of the letdown reflex. Sore nipples propelled the next group to wean their infants earlier than intended. Illness of either the mother or baby also resulted in the termination of breastfeeding. Finally, a couple of women stopped

when they resumed their jobs. Except for the last reason a complete lack of knowledge of the mechanics of breastfeeding, of how to establish a good milk supply and deal with sore nipples eclipsed the period of lactation.

(3) Discussion of the breastfeeding

There is no medical reason save infectious disease, mental illness and insanity to prevent a woman from being able to successfuly feed her child. Studies have shown that unless a woman is greatly under nourished her milk will contain all the necessary ingredients and be in more than abundant supply (Pryor 1976). The breasts produce 20% more milk than was removed in the previous feeding suggesting that not only is there an ample food supply but that it is constantly increasing to keep pace with the growing appetite of the child. We then propose that the structural and experiential features of the biomedical system, by being incongruent with successful lactation, are the primary reasons for the early termination, and overall reduced incidence.

Entrenched in the structural and experiential features of the biomedical system are contradictions which are in direct conflict with what is best for the newborn. The contradictions are (1) schedules routinized to accomodate first the health producers and only secondarily the patients, (2) the information gap between patients and health producers created by the latter controlling the flow of information, and (3) the emphasis on curative practises and secondary care rather than preventative medicine (Waitzkin and Waterman 1974). They impede the normal flow of milk by interfering with the following three stages of the lactation process:

(1) With extending the period before the true milk comes in. True milk begins as a function of how soon after birth and how frequently the breast is sucked. According to our respondents their infants were put to

the breast 12-24-36 hours after the birth and then again only at the every four hour feeding period. Seeing the weight loss of their infant and fearing that the colostrum was not good enough for the baby mothers decided to terminate lactation.

(2) With the establishment of a good milk supply. Since the amount of milk in the breasts is directly proportional to the amount the baby removes, frequent nursing results in an increase in the milk supply. Hospital practise in which the baby is fed every four hours and given a supplement in between counters conditions under which a good supply of milk is established. In order to compensate for the perceived deficiency in their milk many of our respondents thought that they should use a bottle.

(3) With the let-down reflex. Sucking alone removes one-third of the milk. The remainder requires the smooth functioning of the let-down reflex which triggers the secretion of the hormone oxytocin and the subsequent release of the remaining milk. Stress interferes with this process in such a manner that the oxytocin will not reach its destination and the unexpended milk will not be discharged. Again, the only way to appease the baby appeared to be the bottle.

Hospital routine, lack of communication and a preference by biomedical personnel for medical solutions hence catalyzed many of the problems Cree women encountered with breastfeeding. As discussed in Chapter IV, by virtue of the subordinate and peripheral position of the Crees contradictions in biomedicine are exploited further, thereby inadvertently exacerbating the effects of the contradictions on the duration of breastfeeding. Culminating in a total lack of communication between health worker and patient, the medical personnel at the hospital see little reason to encourage health promotion with the Crees because they have assumed that

the latter are not interested in accepting responsibility for their own health care. The upshot of this is the immediate application of injections by medical personnel to stop the milk at the first indication of difficulty. Many of the women have hence stopped lactation before they leave the hospital.

Biomedicine must also absorb partial blame for the fact that most of the settlement living women who breastfed had milk for less than three months. Although good feeding habits and a good milk supply were not established by either the bush or the settlement living mothers while they were in the hospital, in general the former transcended the disadvantaged beginning. Their success is attributed to the support they obtain from a lifestyle which is conducive to breastfeeding and to the encouragement derived from contact with an older generation of women who, cognizant of the lactation process, provide the necessary advice. Women in the settlement do not have the advantage of such advice and encouragement. Not having been taught good feeding habits in the hospital and missing the support of the older women the settlement mothers often have trouble producing sufficient milk to satisfy their infant. Concluding that there is something wrong with their breasts or milk they turn to the bottle.

The incomplete transmission of breastfeeding knowledge from one generation to the next in conjunction with a paucity of biomedical personnel in Mistassini to disseminate information about breastfeeding completes the equation for why women terminate early.

Explanation for the incomplete transmission of breastfeeding knowledge and the lack of biomedical services is situated in the larger context of development. As discussed in Chapter II the specific nature of the articulation of Cree social formation with the larger Canadian society has

resulted in the majority of the population over the age of 35 favouring the subsistence sector while the younger adults are drawn to wage labour. Truncated contact between the two affords little opportunity to convey medical teachings. The incomplete transmission of medical knowledge from one generation to the next would not have the same effect on lactation however were other mechanisms furnished by the biomedical system available to fill the lacuna.

The same factors precipitate the continued decline in the incidence of breastfeeding. As stated earlier 92% of the decisions not to lactate were based on a total lack of knowledge or a misunderstanding about the mechanics of breastfeeding and its association with disease. Despite the high rate of infant morbidity and mortality in James Bay, biomedicine, with its emphasis on curative care rather than preventative medicine and its penchant to little communication between health worker and patient, has not manifested a concerted effort to confront the health problems at source. A couple of nurses at the hospitals may suggest to the mothers that they breastfeed but there is no organized hospital policy emphasizing it. In fact in the hospital it continues to be easier for the women to obtain information and samples of bottlemilk than it is to procure information about breastfeeding. With no organized programme in the hospital promoting breastfeeding it goes without saying that the hospital has not equipped, trained or encouranged the nursing station nurses under their jurisdiction for this task. And finally, many of the women do not have the necessary relations with the older women to start breastfeeding on the basis of their advice alone. As a result, few of the women living in the settlement - the place where lactation is the most crucial because of the high rate of disease - breastfeed their first borns. The rate of breastfeeding second

borns by settlement mothers increases as women learn from experience the relationship between health and bottlefeeding. As attested by the rate of infant mortality and morbidity for some that cost has been high.

In short, consideration by the Crees of treatments, methods and pharmacopoeia reveals a fairly uncritical and unself-conscious incorporation of the biomedical system - an acceptance which inheres even when weaving through the biomedical system are its contradictions and by extension the contradictions of capitalist social formation, and even when bad for the health. Nowhere is this more clear than in the decline in incidence and duration of lactation. I impute the decline to the interplay between the structural and experiential contradictions in the biomedical system and the subordinate position of the Cree in development, a dynamic which when fully exploited impinges on the natural flow of milk. Lacking adequate sources of advice and information Cree mothers, with the exception of those in the bush, must rely solely on experience to decide to breastfeed and to rectify the problems which they may encounter. Many have paid a high price for that experience.

Summary

In this chapter the pendulum has swung from the emphasis in earlier chapters on the structural antecedents of medical systems to the response by the people to the medical systems, that is to the experiential concomitants. Arguing that experience in daily life generates a reaction to social forms, problem-solving and partial recognition were put forth as the mechanism through which reaction, and ultimately change transpires. Reaction was not however presented as an unrestrained social force, for in keeping with Proposition 3, it was contained by its grounding in social formation.

With the elaboration of Proposition 4, the role of experience in constituting the basis for reaction was further qualified. Concentrating on the Cree response to the biomedical services in their communities it was here seen that experience inspired a recognition of the contradictions in the social relations and ideology of the biomedical system, particularly as manifested in the medical encounter. It also precipitated the conflict between the two systems over some of the classifications of disease. In both these instances the analogues from the Cree system are advanced as the preferred form. But, as indicated by the Cree response to the treatments, pharmacopoeia, and methods of the biomedical system, experience in social formation has its limitations. For one, it does not automatically generate a uniform and consistent recognition of the contradictions in the biomedical system. Moreover, experience in social formation does not completely subsume the contents of the prefigurative form as Crees acknowledge and request that their gaps in medical knowledge be filled.

CHAPTER VI

CONCLUSION

The organization of biomedical services in Cree communities reflects a shocking disregard for native concerns in health. Now with the signing of the JB & NQA the Crees have the institutional means through which to assert their interests. The expression of these interests by the Cree leadership has consisted of an indictment of the paucity of health resources and infrastructure in the settlements. This year, in an attempt to redress the situation they successfully secured 32 million dollars from the federal government for health and social services. The money was quickly slotted for the construction of badly needed water and sewage facilities and housing.

Yet to be responded to, however, is the criticism emanating from the communities about the actual production of medical services, and about the degree to which the Cree domestic mode of production and the Cree medical system should inform the biomedical services. As it stands, since the signing of the JB & NQA there has been no discontinuity in the form and content of the biomedical system. Hence, despite the fact that the health problems in the Cree communities and the Cree domestic mode lend themselves to different solutions, the biomedical services serving the Cree pursue the same policies as they did prior to the Agreement, ignoring the user in favour of hospital based curative services.

I am concerned with the expression of local interests in the biomedical services. The focus of the thesis is the articulation of the Cree and biomedical systems as they interface in the Cree communities of eastern James Bay. Apposite here is the effect of the discrepancies between the two medical systems in shaping the Cree perception of how the biomedical system serving them should be constituted. Three elements of the medical systems, the definition of disease, relations in the medical encounter, and medical treatments, were under scrutiny.

My problem has implications which are both theoretical and practical. The central theoretical concern attempts to establish the relationship between social formation, medical systems and experience. It is broached by way of four propositions, the first two of which discuss the antecedents of the medical systems in the social formation. Stressing the importance of response and reaction to structure the remaining two seek to illustrate the dynamic established in medical systems as a result of experience in day to day life. This combinatory tenders an approach in which the objectivity of social existence is seen in its relatedness to human subjectivity - where groups are perceived in their unity as part objects, part subjects (Anderson 1980:17).

Rather than being considered symbol systems grounded in a larger social context, medical systems are often perceived as either enhancing survival or serving social or psychological needs. Through our lens it is discerned that the biomedical and Cree medical systems may be linked through common social relations and a shared ideology to capitalist social formation and the Cree domestic mode of production respectively. Tempering these determinants are attributes introduced by the medical systems themselves - attributes derived from a culturally specific medical logic

and from the exigencies of the medical systems operating within a particular historic conjuncture.

In a further attempt to avoid the inevitable determinism in structural analyses, attention has also been placed on the processes of interpellation, that is on the constitution of human subjectivity. Here, arguing from the premise that the structural matrix does not exhaust the meaning of disease, the relations in the medical encounter and treatments, I have suggested that experience in daily life must also be recognized as a determinant of medical systems. To complete the analysis I have posited however that although groups may react to and modify medical systems in response to experience in social formation, experience does not necessarily decry all the attendant contradictions, nor does it automatically constitute the desired prefigurative form.

More concretely, this is to suggest that permeating the Cree response to the biomedical system is a distinctly Cree ideology based on the dual-modality of sharing and cooperation, and self-reliance and autonomy derived from the domestic mode of production. It continues to structure the social relations of the medical encounter and furnish a framework for the definition of disease. Health (and disease) is hence perceived as an individual and group responsibility with a strong emphasis placed on sharing and cooperation in the medical encounter. Sole determinance of the Cree medical system by the domestic mode of production is mitigated by the influence of the codes through which the Crees maintain health and interpret symptoms. Based on a medical grammar which diagnoses disease in terms of the pain involved, the age of the patient, the patient's past medical history, and the anticipated consequences of the symptoms, the Cree medical codes are highly responsive to changes in the disease profile

of the community. The boundaries of the medical grammar do not, however, subsume all the diseases which may have serious implications, for as we have seen, otitis media and skin infections are not thought to warrant a response.

Through processes of interpellation the structural forms injected by the domestic mode and the codes of disease are tuned. Here the experience of day to day life, while entrenching the relations of the domestic mode in the medical encounter, throws into doubt their pertinence for certain aspects of the meaning of disease. For instance, people are unsure about the role of the group and the individual in the etiology of many of the newer infectious diseases. Moreover, experience in the quotidian has led Crees to question the relevance of some of the codes of disease of the popular medical system. Although Crees consider some of their codes to be superior (i.e., for respiratory disorders and gastroenteritis), others are recognized as being irrelevant, and for certain disorders it is acknowledged that adequate codes are not part of the Cree medical grammar. Furthermore, the mechanisms of interpellation have rendered the Crees less interested in the treatments of the popular medical system and highly amenable to those offered by the biomedical system.

Just as the Crees have modified the popular medical system in response to experience in daily life, so too they seek to transform the biomedical system. While assuaging the Crees with medicines which Crees have found useful the biomedical system is discordant with Cree social relations, and their definitions of health and disease. The form and content of the biomedical system have precipitated a great deal of alarm for the people feel it places the health of their children in jeopardy. In addition, they deeply resent the subordinate status which is imposed

on them at all levels of the health care system. Because of the discrepancies over the classification of disease and social relations in the medical encounter Crees agree with Starblanket's (1979/80) accusations that aspects of biomedicine in native communities have been ineffective and inhumane.

Their blueprint for change is multifaceted. It appears that Crees are espousing a medical system in which the relations of the domestic mode of production structure relations in the medical encounter, in which the codes of the biomedical system are complemented by codes from the Cree medical system, but in which the treatments and the pharmacopoeia of the biomedical system are totally accepted. The contradictions in biomedical techniques, while having potentially serious implications (as in the breast-feeding example) are not apprehended and by extension are not challenged. Similarly, because the discrepancy between medical systems over the role of the group and individual in the meaning of disease is not apparent to the Crees there is little argument here either. This translates into the Crees' preference for a system of medicine which consists of Cree social relations, and Cree concepts about health and disease diagnosis in combination with biomedical technology and information.

Through the incorporation of Cree relations the Cree hope to eliminate the hierarchical relations in the biomedical system. By providing input into the actual organization of services and programmes they hope to reduce some of the dependency on biomedical workers as well as assert control over the direction of the medical system. And through the recognition of the efficacy of some of the Cree disease codes they hope to realign the health delivery system to the disease conditions in the communities.

It could be argued that the complaints which the Crees have about the biomedical services are no different from the dissatisfactions echoed by users of the biomedical system anywhere. It is true that people in general resent the hierarchical and dependent relations, and the narrow focus in the definition and treatment of disease. The difference between Crees and other groups in the response to biomedicine lies not in the identification of which aspects of the biomedical system are unsatisfactory, but in the reasons why the particular aspects are unacceptable. In the case of the Crees, they are unacceptable because they are a flagrant transgression of the basic rules of Cree social behavior. While such transgressions are no longer totally unexpected in interactions with non-natives they are certainly not condoned by Crees. Indeed, because of the disease conditions in the communities they are seen as potentially dangerous.

The Cree education system, with its curriculum of Cree culture, attempts to reflect specifically Cree concerns. As we have ascertained, the same cannot be said of the biomedical system serving them. Here the structure mirrors the characteristic relations, ideology and definitions of the biomedical system anywhere. Because the Cree occupy a special position in Quebec with regard (1) to their expressed goal of perpetuating the relations and ideology of the domestic mode of production, (2) to the undeveloped state of the health services in their communities, and (3) to the nature of disease in the settlements, the biomedical system serving them should be of a different character from that elsewhere in the province.

The explanation frequently forwarded for the homogeneity in the biomedical system by its apologists is that the specialized nature of medicine demands the professional model of rules and roles which are currently manifested. I disagree. As there is nothing about medicine in

Cree communities which requires that the disparity between health worker and Cree patient be perpetuated or that the definition of disease categorically exclude the Cree definition, the present system cannot be condoned. What remains to be seen is the extent to which the Crees have sufficient power and influence to transform a recalcitrant and well-calcified system.

This thesis has looked at the Cree interests in health care as they relate to the production of medical services, and in particular the medical services addressing children's health. Here medical systems are treated as symbol systems which are grounded in a particular historical matrix. The point of reference throughout the discussion was the Cree medical system. In order to complete the analysis of the articulation between the Cree medical and the biomedical systems future research could elaborate more fully the dynamic within biomedicine. Because the emphasis was on elucidating the relationship between social formation, medical systems and experience many aspects of the Cree medical system were also not investigated. The most obvious ommission in this regard is an explanation for how the specificity symptoms and symptom clusters recognized by the Crees may be grouped into an overall system of disease classification. This suggests another area of possible future research. More attention could also be placed on the factors influencing the <u>distribution</u> of health services to native communities, a subject which was touched upon in Chapter II but still deserves a more detailed historical and political analysis.

REFERENCES

Ackerknecht, Erwin M. 1948. Medicine and Disease among the Eskimo. Ciba Symposia 10:916-921.

Althusser, Louis. 1971. Lenin, Philosophy and Other Essays. London: New Left Books.

Anderson, Perry. 1980. Arguments within English Marxism. London: New Left Books and Verso Editions.

Anonymous. 1979. Final Report of the Steering Committee: Epidemiological Study of the Effects of the Exposure to Methyl-Mercury on the Health of Individuals Living in Certain Areas of the Province of Quebec. Methyl-Mercury Study Group. Montreal: McGill University.

Asch, Michael. 1982. Dene Self-Determination and the Study of Hunter-Gatherers in the Modern World. In E. Leacock and R. Lee (eds.), Politics and History in Band Societies. Cambridge: Cambridge University Press.

Bader, Michael A. 1976. Breastfeeding: The Role of the Multinationals in Latin America. International Journal of Health Services 6(4).

Bain, M.W. and Goldthorpe, E.G. 1973. The University of Toronto Sioux Lookout Project: A Model of Health Care Delivery. In E. Torrey (ed.), Community Health and Mental Health Care Delivery. Toronto: MSS Publications.

Barnouw, V. 1963. Culture and Personality. Homewood, Illinois: The Dorsey Press.

Bishop, Charles. 1973. Ojibwa Cannibalism. IX International Congress of Anthropological and Ethnological Sciences. Chicago.

Black, Mary E. 1977. Ojibwa Power Belief System. In Raymond Fogelson and Richard N. Adams (eds.), The Anthropology of Power: Ethnographic Studies from Asia, Oceania and the New World. New York: Academic Press.

Blacksmith, Louise. 1981. Weskach Kaaishi - nituhkuhiisunaanuuhch - Natural Cree Medicines. Mistassini Lake, Quebec: Cree Publications.

Bodenheimer, Thomas. 1979. Class Struggle in a Beleaguered Health System. In Marlene Dixon and Thomas Bodenheimer, M.D. (eds.), Health Care in Crisis - Essays on Health Services under Capitalism. San Francisco: A Synthesis Publication.

Brett, Brian. 1969. A Synopsis of Northern Medical History. Canadian Medical Association Journal 100:521-525.

Brill, A.A. 1913. Piblokto or Hysteria among Perry's Eskimos. Journal of Nervous and Mental Disease 40:514-528.

Brown, C.E. 1944. Winabozho. Madison.

Brown, Jennifer. 1971. The Cure and Feeding of Windigos: A Critique. American Anthropologist 73:20-23.

Burgess, J. Allen. 1947. Windigo! Beaver 277:4-5.

Butler, G.C. 1973. Delivery of Health Care in Northern Canada. Canadian Journal Opthalmology 8(April):188-195.

Canada. 1974. Policy of the Federal Government Concerning Indian Health Services. Ottawa: Department of National Health and Welfare.

Carstens, Peter. 1971. Coercion and Change. In Richard J. Ossenberg (ed.), Canadian Society, Pluralism, Change and Conflict. Scarborough, Ottawa: Prentice Hall.

Chance, Norman A. 1968. Conflict in Culture: Problems of Development Change among the Cree. Document 2. Ottawa: Canadian Research Centre for Anthropology, St. Paul University.

Chance, Norman A. 1970. Development Change among the Cree Indians of Quebec. McGill Cree Project (ARDA No. 34002). Ottawa: The Department of Regional Economic Expansion.

Chapman, John W. 1921. Tinneh Animism. American Anthropologist 23:298-310.

Clarke, Simon. 1980. Althusserian Marxism. In Simon Clarke et al (eds.), One Dimensional Marxism - Althusser and the Politics of Culture. London and New York: Allison and Busby.

Clement, Wallace and Dracht, Daniel. 1978. A Practical Guide to Canadian Political Economy. Toronto: James Lorimer and Company.

Clements, Forest Edward. 1925. Primitive Concepts of Disease in North America. University of California: Publications in American Anthropology and Ethnology.

Cooper, J.M. 1928. Field Notes on Northern Algonkian Magic. International Congress of Americanists, Proceedings 23:413-418.

Cooper, J.M. 1933. The Cree Witiko Psychosis. Primitive Man 6:20-24.

Crichton, Anne. 1980. Equality: A Concept in Canadian Health Care: From Intension to Reality of Provision. Social Science and Medicine 14C(4):243-250.

D'Angrade, Roy. 1976. A Propositional Analysis of U.S. American Beliefs about Illness. In K.M. Bano and M.A. Selby (eds.), Meaning in Anthropology. Albuquerque: University of New Mexico Press.

Delahaye, D.J. et al. 1979. Kashechewan Child Health Study Report: A Report of a Study of Child and Family Health in Transitional Sub-Arctic Native Communities in the James Bay Area. Ottawa: National Health and Welfare.

Densmore, Francis. 1929. Chippewa Customs. U.S. Bureau of American Ethnography, Bulletin 86:1-204.

Desy, Pierrette. 1968. Ft. George. Unpublished Ph.D. thesis. Paris: La Sorbonne.

Diamond, Billy. 1980. Quebec Not Honouring James Bay Pact. The Gazette. August 30.

Dixon, Marlene and Bodenheimer, Thomas. 1979. Health Care in Crisis: Essays on Health Services under Capitalism. San Francisco: A Synthesis Production.

Draper, H.M. 1976. A Review of Nutritional Research in the Arctic. In R.J. Shepard (ed.), Third International Symposium on Circumpolar Health. Toronto: University of Toronto.

Ehrenreich, John. 1978. Introduction: The Cultural Crisis of Modern Medicine. In John Ehrenreich (ed.), The Cultural Crisis of Modern Medicine. New York and London: Monthly Review Press.

Ehrenreich, John and Ehrenreich, Barbara. 1978. Medicine and Social Control. In John Ehrenreich (ed.), The Cultural Crisis of Modern Medicine. New York: Monthly Review Press.

Engel, George L. 1977. The Need for a New Medical Model: A Challenge for Biomedicine. Science 196(4286):129-136.

Erasmus, Charles J. 1982. Changing Folk Beliefs and the Relativity of Empirical Knowledge. Southwestern Journal of Anthropology 8:411-428.

Feit, H.A. 1969. Mistassini Hunters of the Boreal Forest: Ecosystem Dynamics and Multiple Subsistence Patterns. M.A. Thesis. Montreal, McGill University, Department of Anthropology.

Feit, H.A. 1978. Waswanipi Realities and Adaptations: Resource Management and Cognitive Structure. Ph.D. thesis. Department of Anthropology, McGill University, Montreal.

Feit, H.A. 1979. Political Articulations of Hunters to the State - Means of Resisting Threats to Subsistence Production in the James Bay and Northern Quebec Agreement. Etudes/Inuit/Studies 3(2):37-52.

Feit, H.A. 1980. Talk to Department of Anthropology. October 10, McGill University, Montreal.

Feit, H.A. 1982. The Future of Hunters within Nation-States: Anthropology and the James Bay Cree. In E. Leacock and R. Lee (eds.), Political and History in Band Societies. Cambridge: Cambridge University Press.

Figlio, Karl. 1979. Sinister Medicine? A Critique of Left Approaches to Medicine. Radical Science 9:14-68.

Fogelson, Raymond D. 1965. Psychological Theories of Windigo 'Psychosis' and a Preliminary Application of a Models Approach. In Melford E. Spiro (ed.), Control and Meaning in Cultural Anthropology. New York: The Free Press.

Fortuine, Robert. 1981. The Health of the Eskimos as Portrayed in the Earliest Written Accounts. In S.E.D. Shortt (ed.), Medicine in Canadian Society - Historical Perspectives. Montreal: McGill Queens University Press.

Foulks, Edward F. 1972. The Arctic Hysterias of the North Alaskan Eskimo. Anthropological Studies 10, Anthropological Association. Washington.

Freeman, Daniel; Foulks, Edward; and Freeman, Patricia. 1978. Child Development and Arctic Hysteria in the North Alaska Eskimo Male. Journal of Psychological Anthropology 1(2):203-210.

Friedson, Eliot. 1970. Profession of Medicine: A Study of the Sociology of Applied Knowledge. New York: Dodd, Mead and Company.

Geertz, Clifford. 1973. The Interpretation of Culture. New York: Basic Books.

Glenday, D.M. et al. 1978. Modernization and the Canadian State. Toronto: The Macmillan Company of Canada.

Good, Byron. 1977. The Heart of What's the Matter. Culture, Medicine and Psychiatry 1:25-58.

Gould, Harold. 1965. Modern Medicine and Folk Cognition in Rural Inida. Human Organization 24:201-208.

Gouldner, Alvin R. 1976. The Dialectic of Ideology and Technology. New York: Oxford University Press.

Graham-Cummings, G. 1968. Nutrition and Mortality Data from the 1962 Survey of 5,598 Indian Births. Intradepartmental Report, Ottawa: Department of National Health and Welfare, Medical Services.

Gramsci, Antonio. 1971. Prison Notebooks. (Edited and translated by Quintin Hoare and Geoffrey Nowell Smith.) New York: International Pub.

Gussler, Judith and Briesemeister, Linda. 1980. The Insufficient - Milk Syndrome: A Bio-cultural Explanation. Medical Anthropology, Spring: 145-174.

Gusson, Zachary. 1960. Pibloktoq, Hysteria Among the Polar Eskimo. In Warren Muensterberger and Stanley Axlrod (eds.), Psychoanalytic Study of Society. New York: International Universities Press.

Hahn, Robert A. 1982. "Treat the Patient, Not the Lab" Internal Medicine and the Concept of Person. Culture, Medicine and Psychiatry 6(1982): 219-236.

Hamilton, J.R. 1975. Intractable Diarrhea. In J.C. Hawthorne (ed.), Nutrition of Indian and Eskimo Children, Report of the Second Canadian Ross Conference on Paediatric Research. Montreal: Ross Laboratories.

Hardy, William. 1978. Language, Thought and Experience. Baltimore: University Park Press.

Hay, Thomas H. 1971. The Windigo Psychosis: Psychodynamic, Cultural and Social Factors in Aberrant Behavior. American Anthropologist 73:1-19.

Holtzman, Eric. 1981. Science, Philosophy and Society: Some Recent Books. International Journal of Health Services 11(1):123.

Illich, Ivan. 1976. Limits to Medicine. Great Britain: Marion Boyars.

Jenness, Diamond. 1964. Eskimo Administration: II Canada. Arctic Institute of North America Technical Papers, No. 14.

Jette, J. 1907. On the Medicine Men of the Tena Indians. Journal of the Royal Anthropological Institute of Great Britain and Ireland 37(10): 157-188.

Jette, J. 1911. On the Superstitions of the Ten'a Indians. Anthropos 6:95-108, 241-259, 602-615, 699-723.

Judd, Carol. 1980. Native Labour and Social Stratification in the Hudson's Bay Company's Northern Department: 1770-1870. Canadian Review of Sociology and Anthropology 17(4):305-314.

Kahn, Joan Y. 1978. A Diagnostic Semiotic. Semiotica 22:1-20.

Kistabish, Richard. 1982. La santé chez les Algonquins. Recherches amérindiennes au Québec XII (1):29-39.

Kleinman, Arthur. 1973. Some Issues for a Comparative Study of Healing. International Journal of Social Psychiatry 19(3-4):159-165.

Kleinman, Arthur. 1974. Medicine's Symbolic Reality - On a Central Problem in the Philosophy of Medicine. Inquiry 16:206-213.

Kleinman, Arthur. 1978. Culture, Illness and Cure: Clinical Lessons from Anthropological and Cross-Cultural Research. Annals of Internal Medicine 88(2):251-258.

Knight, Rolf. 1968. Ecological Factors in the Changing Economy and Social Organization among the Rupert House Cree. Ottawa: National Museum of Canada. Anthropological Papers No. 15.

Labbé, Jean. 1981. La santé au Nouveau-Québec Inuit. Etudes/Inuit/Studies 5(2):63-81.

Lacasse, Fernard. 1982. La conception de la santé chez les Indians Montagnais. Recherches amérindiennes au Québec vol. xii (1):25-28.

Laclau, Ernesto. 1979. Politics and Ideology in Marxist Theory. London: Verso Editions.

Landes, Ruth. 1968. Ojibwa and the Medewin. Madison: University of Wisconsin Press.

Lantis, Margaret. 1950. The Religion of the Eskimos. In Vergilius Ferro (ed.), Forgotten Religions. New York: Philosophical Library:311-339.

LaRusic, Ignatius E. et al. 1979. Negotiating a Way of Life. Ottawa: Research Division, Policy, Research and Evaluation Group of the Department of Indian and Northern Affairs.

Laughlin, William J. 1963. Primitive Theory of Medicine: Empirical Knowledge. In Iago Galdstin (ed.), Man's Image in Medicine and Anthropology. New York: International Universities Press, Inc.:116-140.

Leacock, Eleanor. 1954. The Montagnais Hunting Territory and the Fur Trade. American Anthropological Association, Memoir 78, 56(5) Part 2.

Lock, Margaret. 1980. East Asian Medicine in Urban Japan. University of California Press, Berkeley, Los Angeles, London.

Lock, Margaret. 1982. Models and Practice in Medicine: Menopause as Syndrome or Life Transition? Culture, Medicine and Psychiatry 6:261-280.

Lovell, Terry. 1980. The Social Relations of Cultural Production: Absent Centre of a New Discourse. In Simon Clarke et al. (ed.), One Dimensional Marxism, Althusser and the Politics of Culture. London and New York: Allison and Busby: 232-256.

Loxley, John. 1980. The Great Northern Plan. Unpublished manuscript, Winnipeg, University of Manitoba.

Manning, P.J. 1975. The Nutritional Bases of Otitis Media. In J.C. Hawthorne (ed.), Nutrition of Indian and Eskimo Children, Report of the Second Canadian Ross Conference on Pediatric Research. Montreal: Ross Laboratories.

Marsh, Gordon H. and Laughlin, William S. 1956. Human Anatomical Knowledge among the Aleutian Islanders. Southwestern Journal of Anthropology 12:38-78.

Marshall, Susan. 1979. Children's Health and Curing Strategies among the Cree in Ft. George. Report prepared for the Montreal General Hospital and the Cree Board of Health and Social Sciences.

Marshall, Susan. 1980. Health and Healing in the Arctic and Subarctic: A Review and Bibliography of the Anthropological Literature. Department of Anthropology, McGill University, paper submitted for a course.

Marshall, Susan. 1980. Health Care in Mistassini. Report prepared for the Mistassini Band Council.

Marshall, Susan. 1982. L'allaitement maternel chez les Cris de la Baie de James: crise dans les services de santé. Recherches amérindiennes au Québec 12(1):33-41.

McDonnell, Kevin and Robins, Kevin. 1980. Marxist Cultural Theory: The Althusserian Smokescreen. In Simon Clarke et al. (ed.), One Dimensional Marxism, Althusser and the Politics of Culture. New York and London: Allison and Busby Ltd.:157-231.

McLennan, Gregor; Molina, Victor and Peters, Roy. 1977. Althusser's Theory of Ideology. In On Ideology. London: Hutchison.

Milan, Leda Chase. 1974. Ethnohistory of Disease. Medical Care Among the Aleut. Anthropological Papers of the University of Alaska 16(2): 15-40.

Navarro, Vicente. 1976. Medicine under Capitalism. New York: Prodist.

Navarro, Vicente. 1978. The Crisis of the Western System of Medicine in Contemporary Capitalism. International Journal of Health Services 8(2):179-211.

Navarro, Vicente. 1980. Work, Science and Ideology. Social Science and Medicine 14C:191-205.

Norbert, Roland. 1976. Les Inuit du Nouveau-Québec et la Convention de la Baie James. Québec: Laval Université.

Offe, Claus. 1975. The Theory of the Capitalist State and the Problem of Policy Formation. In Leon H. Lindberg et al. (eds.), Stress and Contradiction in Modern Capitalism. Toronto: Lexington Books.

O'Neil, John D. 1979. Health Care in an Inuit Settlement: A Study of Conflict and Congruence in Inuit Adaptation to the Cosmopolitan Medical System. M.A. thesis, University of Saskatchewan, Saskatoon.

O'Neil, John D. 1981. Beyond Healers and Patients: The Emergence of Local Responsibility in Inuit Health Care. Etudes/Inuit/Studies 5(1): 17-26.

Oswalt, Wendel H. 1957. A Western Eskimo Ethnobotany. Anthropological Papers of the University of Alaska 6(1):16-36.

Ouellette, Francoise Romaine. 1977. Les Cris au Québec, des sous-proletaires. Recherches amérindiennes au Québec vi (3-4):8-15.

Paine, Robert. 1977. The Nursery Game - Colonizers and Colonized in the Canadian Arctic. Etudes/Inuit/Studies.

Parker, Seymour. 1962. Eskimo Psychopathology in the Context of Eskimo Personality and Culture. American Anthropologist 64(1):76-96.

Pekeles, Gary, M.D. 1981. An Epidemic of Infantile Gastroenteritis in the Hudson Bay and James Bay Regions. (A description and recommendations to the ministère des Affaires sociales.)

Perkins, G.B. and Church, G.M. 1960. Report of Pediatric Evaluations of a Sample of Indian Children - Windy River Indian Reservation. American Journal of Public Health 50:181-194.

Poulantzas, Nicos. 1978. State, Power, Socialism. London: New Left Books.

Preston, Richard. 1975. Cree Narrative: Expressing the Personal Meanings of Events. National Museums of Canada, Canadian Ethnology Service Paper No. 30. Ottawa.

Preston, Richard J. 1977. The Wiitiko: Algonquian Knowledge and Whiteman Interest. In William Cowan (ed.), Actes du Huitieme Congres des Algonquinistes. Ottawa: Carlton University.

Pryor, Karen. 1976. Nursing Your Baby. New York: Pocket Books.

Québec. 1976. The James Bay and Northern Québec Agreement. Québec: Editeur Officiel.

Renaud, Marc. 1978. On the Structural Constraints and State Intervention in Health. In John Ehrenreich (ed.), The Cultural Crisis of Modern Medicine. New York: Monthly Review Press.

Richardson, Leone. 1981. Dispensation of Medical and Administration. Services for the Communities of Nemaska, Waswanipi and Mistassini Report prepared for Cree Board of Health and Social Services of James Bay.

Ridington, Robin. 1978. Swan People: A Study of the Dunne-za Prophet Dance. Mercury Series. Ethnology Service Paper, No. 38. Ottawa: National Museums of Canada.

Ritzenthaler, Robert E. 1945. The Ceremonial Destruction of Illness by the Wisconsin Chippewa. American Anthropologist 47:320-322.

Rohrl, Vivian J. 1970. A Nutritional Factor in the Windigo Psychosis. American Anthropologist 72:97-101.

Romanucci-Ross, Lola. 1977. The Hierarchy of Resort in Curative Practises: The Admiralty Islands, Melanisia. In David Landy (ed.), Culture, Disease and Healing. London: Collier Macmillan Publication.

Romaniuck, A. 1974. Modernization and Fertility: The Case of the James Bay Cree. Canadian Review of Sociology and Anthropology 11(4):344-359.

Sahlins, Marshall. 1976. Culture and Practical Reason. Chicago and London: University of Chicago Press.

Schaeffer, Otto. 1971. Otitis Media and Bottlefeeding: An Epidemiological Study of Infant Feeding Habits and Incidence of Recurrent and Chronic Middle Ear Disease in Canadian Eskimos. Canadian Journal of Public Health 612:478-489.

Schaeffer, O. 1973. The Changing Health Picture in the Canadian North. Journal of Ophthalmology 8(April):196-204.

Schaeffer, O. 1977. Changing Dietary Patterns in the Canadian North: Health, Social and Economic Consequences. Journal of Canadian Dietary Association 38:17-25.

Scott, Colin H. 1979. Modes of Production and Guaranteed Annual Income in James Bay Cree Society. M.A. Thesis, McGill University, Montreal.

Scott, Colin. 1982. Production and Exchange among Wemindji Cree: Egalitarian Ideology and Economic Base. Culture vol. II, no. 3.

Scrimshaw, N.S. et al. 1968. Interactions of Nutrition and Infection. Geneva: World Health Organization.

Seidler, Victor Jeleniewski. 1980. Trusting Ourselves: Marxism, Human Needs and Sexual Politics. In Simon Clarke et al. (ed.), One-Dimensional Marxism. London and New York: Allison and Busby.

Smith, Barbara Ellen. 1981. Black Lung: The Social Production of Disease. International Journal of Health Services 11(B):343.

Smith, D.M. 1973. I^{n}ko^{n}ze: Magico Religious Belief of Contact Traditional Chipewan Trading at Fort Resolution, N.W.T., Canada. Mercury Series, Ethnology Service Paper, No. 6. Ottawa: National Museums of Canada.

Sohesi, A. Morsy. 1981. Towards a Political Economy of Health: A Critical Note on the Medical Anthropology of the Middle East. Social Science and Medicine 15B(2):159-164.

Speck, Frank. 1977. Naskapi - The Savage Hunters of the Labrador Peninsula. Norman: University of Oklahoma Press.

Stalnaker, Robert. 1972. Pragmatics. In Harman and Davidson (eds.), Semantics of Natural Language. Dordretecht, Holland: Reidel Publishing Company.

Starblanket, Neol V. 1979/80. Health Papers and Articles. Ottawa: National Indian Brotherhood.

Szwed, John F. 1975. Race and the Embodiement of Culture. Ethnicity 2:19-23.

Tanner, Adrian. 1979. Bringing Home Animals: Religious Ideology and Mode of Production of the Mistassini Cree Hunters. St. John's: Memorial University, Institute of Social and Economic Research.

Taylor, Malcolm G. 1978. Health Insurance and Canadian Public Policy. Montreal: McGill - Queen's University Press.

Volosinov, V.N. 1973. Marxism and the Philosophy of Language. (Trans. by Ladiskv Matejka & I.R. Titunik.) New York and London: Seminar Press.

Vygotsky, Lev Semenovich. 1962. Thought and Language. (Translated by Eugenia Hanfmann and Gertrude Vakar.) Cambridge, Massachusetts: MIT Press.

Waitzkin, Howard. 1979. The Marxist Paradigm of Medicine. International Journal of Health Services 9(4).

Waitzkin, Howard. 1981. The Social Origins of Illness: A Neglected History. International Journal of Health Services 11(1):77-103.

Waitzkin, Howard and Waterman, Barbara. 1974. Exploitation of Illness in Capitalist Society. New York: The Bobbs-Merrill Studies in Sociology.

Wallace, A.F.C. 1961. Mental Illness, Biology and Culture. In F.K. Hsu (ed.), Psychological Anthropology: Approaches to Culture and Personality. Homewood, Illinois: The Dorsey Press.

Webb, M.L. 1973. Some of the Objectives, Attainments, Aspirations and Possible Future Developments of Health Care in the North. Canadian Journal of Opthalmology 8(2).

Weller, Geoffrey R. 1981. Health Services in the North. Journal of Canadian Studies 16(2):69-80.

Wenzel, George. 1981. Inuit Health and the Health Care System: Change and Status Quo. Etudes/Inuit/Studies 5(1):7-15.

Williams, Raymond. 1977. Marxism and Literature. Oxford: Oxford University Press.

Woods, Clyde. 1977. Alternative Curing Strategies. Medical Anthropology 3:25-52.

Young, S.B. and Hall, E.S. 1969. Contributions to the Ethnobotany of the St. Lawrence Eskimo. Anthropological Papers of the University of Alaska 14(2):43-53.

APPENDIX A

The four propositions were operationalized in the following manner:

Proposition 1

Medical systems are interconnected with social formation through common social relations and a shared ideology. Under scrutiny here are: (1) the relationship between capitalist social formation and biomedicine, and (2) the relationship between Cree social formation and the Cree medical system. In each case I must show that the dominant relations and ideology form the matrix for the medical system.

The features I am looking for in the medical system in Cree social formation are manifestations of sharing, and cooperation in concert with self-reliance and autonomy. The features I am looking for in medicine of the capitalist mode of production are unequal relations between health personnel and patient especially in the areas of information sharing, expressions of respect and empathy, the maximization of professional convenience through controlling the scheduling and the availability of biomedical personnel, and the reduction of health problems to the level of the patient.

For the purposes of this investigation I have separated the medical systems into two parts, into the practises and beliefs about health and disease. The generalizations were drawn from direct observations and informants' statements about both health systems. The objects of investigation were:

1a. The Cree practice of medicine

Statements by Cree informants about:

1. The degree to which they look after or prefer to look after health problems themselves.
2. The kinds of health knowledge they wish to acquire.
3. The point in the disease episode at which they request help.
4. Who they ask for help.
5. How quickly the 'helper' should respond.
6. The manner in which the helper should respond.
7. The differences between medical systems in access to medical care.
8. The differences in attitudes towards helping between the practitioners of the two medical systems.
9. The sharing of health information in the two medical systems.
10. Whether treatment is focused on the group, the individual or both.

Observations by the researchers about the issues raised above.

1b. The Cree definitions of health and disease

Statements by Cree informants about:

1. The role of the individual and the group in health maintenance as it relates to (i) living conditions, (ii) nutrition, (iii) exercise and (iv) the environment.

2. The individual and societal concomitants in the etiology and the labelling of disease.

Observations by the researchers about the issues raised above.

2a. The biomedical practise

Statements by Cree informants about:

1. Aspects of the medical encounter such as the availability of biomedical personnel.
2. The degree to which the disorders for which they sought medical care were responded to adequately.
3. The manner in which the medical encounter was conducted.
4. The communication between biomedical personnel and patient (i.e. explanations about the disease, advice about prevention, sympathy, encouragement, etc.).

Statements by biomedical personnel about the above.
Observations by the researchers about the above.
Observations in the literature for purposes of comparison.

2b. The biomedical definitions of health and disease

Statement by Cree informants about:

1. The extent to which the symptoms they present are treated as a disease.
2. The extent to which the symptoms are treated by biomedical personnel as if they were natural and inevitable.
3. The extent to which the symptoms are treated by biomedical personnel as if they were caused by the individual.
4. The extent to which the symptoms are treated by biomedical personnel by anti-microbal therapy (or the equivalent) alone.

Statements by biomedical personnel about the above.
Observations by the researchers about the above.
Observations in the literature for the purposes of comparison.

Proposition 2

Despite the links between social formation and the medical system there is specificity in the medical systems. In this section I am concerned with the grammar or rules adhered to in the production and recognition of illness by the two medical systems. I was most concerned with the diagnosis of disease. The objects of investigation were:

1a. The Cree definition of health and disease

Statements by Cree informants about:

1. How they classify respiratory disease, skin infections, otitis media, and gastroenteritis.
2. Which symptoms warrant more immediate medical response.

3. Which symptoms are interpreted in combination with others, or just alone.
4. Which of the symptoms determine whether something will be considered a disease.
5. Why these particular symptoms are considered a disease.
6. Whether the same symptoms are interpreted differently for different age groups.
7. Whether the same symptoms are interpreted differently if the child has had a different medical history.
8. Whether the symptoms of a particular age group are thought to require a more immediate response.

Observations by the researcher about the above.

2a. The biomedical definition of health and disease

Statements by Cree informants about:

1. The awareness and sensitivity of medical practitioners to local disease conditions.
2. The continued adherence of health workers to fixed indicators of disease.
3. The incorporation of Cree codes of disease into the diagnosis by biomedical practitioners.
4. The extent to which biomedical practitioners include living conditions and the environment into disease diagnosis.

Statements by biomedical personnel about the above.
Observations by the researchers about the above.

Proposition 3

Change occurs in medical systems as a result of experience in day to life but the change is circumscribed by social formation. This point will be examined by comparing the responses to Propositions 1 and 2.

I was interested in the differences between younger and older Crees, between the settlement and the bush oriented Crees, as well as the range of variation within each group. Also of interest was the variation and change among nurses at the nursing stations and in the James Bay hospitals. With both the nurses and the Crees I was interested in knowing the nature of the change, and whether the change was located in the interpretation of disease, that is in the reinterpretation of the medical codes, or if the change permeated those aspects of the medical systems which link them to to social formation.

Proposition 4

Cree mothers espouse that the medical system serving them should consisted of the relations and ideology of the domestic mode, plus the Cree medical codes in concert with relevant codes from biomedicine, and the biomedical treatments and pharmacopoeia. To investigate this I examined

the nature of the Cree criticism towards the biomedical system as well as the features of biomedicine which Crees see as corresponding to their own interests.

Rather than achieving this through compiling an extensive compendium of complaints I directed the inquiry to questions about how the biomedical response to symptoms compared with the respondents' expectation of how the disorder should be treated. The objects of investigation were:

Statements by Cree informants about:

1. Their view of the efficacy of the particular diagnosis.
2. Their view of the medicines or treatments.
3. Their view about the relations in the biomedical encounter, about the availability of biomedical personnel, the sharing of information, consideration by biomedical personnel of the Cree diagnosis, and the empathy of the biomedical personnel.