TOWARDS A SYNTHESIS OF ETHNOSCIENCE AND SYMBOLIC ANTHROPOLOGY: AN ETHNOGRAPHY OF SURGICAL CULTURE

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By

Douglas William Hume

Approved by:

Susan Parman, Committee Chair Department of Anthropology	Date
Jacob Pandian, Member Department of Anthropology	Date

Lori Sheeran, Member
Department of Anthropology

Date

ABSTRACT

This thesis analyzes the cultural categories of a surgical nurse using an integration of two methods, ethnoscience and symbolic anthropology. Through the use of the developmental research sequence, developed by James P. Spradley, and thick description, popularized by Clifford Geertz, the domain of “picking a case” is examined within the culture scene of the operating room. Symbolic anthropology and ethnoscience are presented as two complementary theoretical approaches for describing culture. The developmental research sequence and thick description are developed as methods of ethnographic research. The methodological and theoretical significance of the use of these two approaches is discussed. The physical setting, kinds of surgeries, personnel, surgical timeline, and domain of "picking a case" are described and analyzed. Finally the cultural themes of the operating room culture scene are identified and discussed.

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Dedicated to
Nadene Clair Nelson
February 24th, 1918 - May 4th, 1997
My kind-hearted and noble-minded
Grandmother

CHAPTER I

INTRODUCTION

The purpose of this thesis is to apply the theoretical frameworks of ethnoscience and the cultural analysis of Clifford Geertz to understand the cultural categories that a surgical nurse deploys as a member of the cultural scene of a hospital operating room. The developmental research sequence, as developed by James P. Spradley, is used to examine cultural data.

This thesis couples the theoretical approaches of Ethnoscience and Clifford Geertz. Although both of these approaches differ in how they intend to interpret cultural phenomena, they are both seeking the same thing; to approximate the reality of human meaning. Ethnoscience seeks to elicit cultural meaning through the use of linquistic analyses. By using these methods, ethnoscience stresses the importance of validity and reliability that can be accomplished by scientistic means. Clifford Geertz's approach, often called interpretive anthropology, seeks to elicit cultural meaning through thick description and interpretation. By coupling these two methods, this thesis gains the systematic reliability of ethnoscience and the interpretive power of Geertz's approach.

This thesis uses several tools to analyze the cultural data collected through ethnographic interviews. Taxonomic analyses are structural representations of different cultural terms and relationships. Thick descriptions are defined as the exhaustive descriptions of cultural data.

representations of different cultural terms and relationships. Thick descriptions are defined as the exhaustive descriptions of cultural data. Componential analyses are in a table format that allows the representation of different cultural terms to each other across a broad range of categorical differences.

Only one informant is used for this analysis because she meets the requirements stipulated by the developmental research sequence. She has been a participant within the operating room for many years and continues to work there. She is untrained in social science research and was willing to answer any question I asked her. A more detailed discussion of the requirements and how my informant met them is discussed in Chapter IV. Since the informant wishes to remain anonymous, she chose a fictitious name, Eleanor, which is used within this thesis to represent her.

Throughout this thesis different theoretical, methodological, and cultural terms are used. In Chapters II, III, and IV all theoretical and methodological terms are placed in quotes the first time they are presented; thereafter they are not highlighted from the rest of the text. The cultural categories in Chapters V, VI, and VII are not placed in quotes because a cultural description is provided that would be disrupted by constant quotes.

In Chapter II, the theoretical assumptions Clifford Geertz's view of symbolic anthropology, interpretive anthropology, and thick description as used for this ethnography are described and explained.

In Chapter III, the principles of the ethnoscientific approach are presented and discussed.

In Chapter IV, thick description and the developmental research sequence are presented as the methods used for this analysis. Here the individual steps of the developmental research sequence are outlined. Each step is thoroughly discussed and examples are given to illustrate them.

In Chapter V, a short history of the operating room is presented. Through a discussion of the development of the culture scene of the operating room a historical context is presented.

In Chapter VI, the ethnographic analysis of the surgical nurse is presented through description of the informant, physical setting, kinds of surgeries/services/cases, personnel, surgical timeline, and domain of picking a case. During the discussion of each of the topics mentioned above, the cultural data are presented in specific references to the ethnographic interviews and through various analytical representations.

In Chapter VII, the cultural themes of the operating room are discussed. Through the use of three strategies for thematic analysis, the themes of the operating room are presented and discussed. The significance of these themes on cultural analysis are also discussed.

In Chapter VIII, I conclude the thesis and discuss the results and their significance. The impact on the informant is discussed. A general overview of the thesis is presented.

The Appendices are compiled into three sections. Appendix I contains the componential analysis that was compiled from the ethnographic data collected. Appendix II is a drawing of a standard operating room that illustrates the location of various equipment. Appendix III includes samples from the ethnographic interview notes.

CHAPTER II

SYMBOLIC AND INTERPRETIVE ANTHROPOLOGY

Symbolic Anthropology

Symbolic anthropology defines culture “as a system of symbols and meanings" (Schneider, 1977:64). Symbolic anthropology was primarily influenced by structuralism, a dominant anthropological theory during the 1960’s promoted by Claude Lévi-Strauss (Geertz, 1973:33). Structuralism and symbolic anthropology share the view that culture is a symbolic system of meanings. Both paradigms also draw upon linguistics and semiotics as structural aids in discovering symbols and their systems. Lévi-Strauss believed in the reduction of the complex to the simple, whereas symbolic anthropology tries to present a complex picture of the simple while retaining the clarity of the simple. Structuralism seeks to understand these systems in terms of their internal structure while symbolic anthropology attempts to understand how these function in concrete situations to organize perceptions (Geertz, 1973:449).

The second most influential paradigm in the development of symbolic anthropology was functionalism, which was prominent in the 1940’s and 1950’s and promoted by A. R. Radcliffe-Brown, Clyde Kluckhohn, Bronslaw

Malinowski, and Walter Goldschmidt. Symbolic anthropology and functionalism contest that symbolic systems provide an emotional investment in one's society. According to Clifford Geertz, "it is through culture patterns, ordered clusters of significant symbols, that man makes sense of the events through which he lives" (C. Geertz 1973:363). Both functionalism and symbolic anthropology also view society as a functional whole where its components "are historically constructed, socially maintained and individually applied" (C. Geertz 1973:364). Functionalism stresses the function of religion or other cultural construct as maintaining a society whereas symbolic anthropology promotes a more processual approach (C. Geertz 1973:143).

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In the 1970's, symbolic anthropology came into prominence within anthropological theory. There are four major figures that have made the most important contributions to symbolic anthropological theory. Douglas Schneider has developed new views on kinship as a symbolic system of culture consisting of not only biological ties but of solidarity and trust among relationships. He holds that kinship symbolically teaches fundamental principles of a whole culture to an individual (Handler, 1995:1208). Kinship therefore maintains a system of culture. Mary Douglas has contributed to symbolic studies by her search for human universal symbols, following a similar research goal of identifying universals begun by Claude Lévi-Strauss. Douglas has studied natural symbols in cosmology (1970), symbols of pollution and taboo (1966), the symbol of exclusion (1991), and the symbol of risk (Douglas and Wildavsky, 1982; Douglas, 1990a, 1990b). Another major contributor to symbolic anthropological theory is Victor Turner. In his view,

"culture has to be seen as processual, because it emerges in interaction and imposes meaning on the biotic and ecological systems (also dynamic) with which it interacts" (Turner, 1985:153). Turner adds that "meaning is assigned verbally through speech and nonverbally through ritual and ceremonial action and is often stored in symbols which become indexical counters in subsequent situational contexts" (1985:154). Therefore, in Turner's view cultural processes must be studied in context.

Interpretive Anthropology

For this thesis, the views of symbolic anthropology of Clifford Geertz will be used which are commonly called interpretive anthropology. According to Geertz, "the whole point of a semiotic approach to culture is... to aid us in gaining access to the conceptual world in which our subjects live" (Geertz, 1973:24). Ludwig Wittgenstein influenced many of Geertz's views including culture being an acted document in a public arena (Geertz, 1973:10). This view lends itself towards an interpretive analysis of culture in the arena of the operating room. Geertz has also used Wittgenstein's view that "human thought is consummately social: social in its origins, social in its functions, social in its forms, social in its application... thinking is a public activity" (Geertz, 1973:360). The influence of Wittgenstein's ideas upon how symbols derive meaning from use in society is apparent when Geertz states that culture is a purely symbolic system when its elements are isolated; internal relationships are specified; and a whole system is characterized in a general

way around core symbols, underlying structures of surface expressions, or ideological principles upon which it is based (Geertz, 1973:17).

Clifford Geertz has used this theory in his ethnographic work in Bali, Java, and Morocco. In his *Local Knowledge: Further Essays in Interpretive Anthropology* (1983), Geertz investigated personhood by analyzing naming practices, time recognizing, and ceremonial conduct. According to Geertz, "the study of culture, the accumulated totality of such patterns, is thus the study of the machinery individuals and groups of individuals employ to orient themselves in a world otherwise opaque" (1983:363). The patterns of culture are huge, picking out important issues seems impossible, but the overall problems being answered are universal and the answers can all be different. To illustrate this an example would be kinship termonologies which can be defined by ranking, age groups, occupations, names, titles, and/or castes.

There have been two major critiques of symbolic anthropology. The first states that symbolic anthropology represents systems as being more coherent and more systematic than they really are, discounts differences and contradictions, and ignores individuals who question parts or all of the culture they are in. In response to this critique, symbolic anthropology assumes that each individual within a society views their culture differently. A shaman, priest, chief, man, woman, or child will each have a different view of religious belief's, but when these beliefs are presented as a whole system, individuality is lost. Symbolic anthropologists respond that to present a

picture of how a symbolic system works sometimes the 'nonconformists' are not included simply for the fact that they are not following the 'culture at large'. Recently symbolic anthropology has been focusing on variation in individual's beliefs to address this problem.

The other critique of symbolic anthropology has been by the Marxist and materialist theorists who critique the premise of symbolic anthropology and state that social action is based upon the material culture and that symbolic anthropology is not describing the causes but effects of culture. Symbolic anthropologists respond that even if they are not the describing causality, symbolic systems do dictate how people act, so it is important. Therefore, systems of meaning do have a force in the world.

According to Clifford Geertz, "it is through culture patterns, ordered clusters of significant symbols, that man makes sense of the events through which he lives" (Geertz, 1973:363). Society is a functional whole where its components "are historically constructed, socially maintained and individually applied" (Geertz, 1973:364). According to Geertz, "the whole point of a semiotic approach to culture is... to aid us in gaining access to the conceptual world in which our subjects live" (Geertz, 1973:24). To present a complex description of culture, this thesis uses a tool developed by Clifford Geertz, "thick description."

Thick Description

Gilbert Ryle first coined the term "thick description," which is used by Clifford Geertz to illustrate an exhaustive ethnographic method. Geertz extended the meanings associated with Ryle's definition of thick description in three ways. First, Geertz added that in providing thick description

> The ethnographer "inscribes" social discourse; he writes it down. In so doing, he turns it from a passing event, which exists only in its own moment of occurrence, into an account, which exists in its inscriptions and can be reconsulted. (1973:19)

This is exemplified in Chapter VI when a surgical timeline is recorded which turns the event from a passing occurrence to a static record. Second, Geertz added, "our formulations of other peoples' symbol systems must be actor-oriented" (Geertz, 1973:14). But while Geertz attempted to provide a concept of thick description that enables an ethnographer to approximate the world of meaning of the informant, he agreed that "anthropological writings are themselves interpretations, and second and third order ones" (Geertz, 1973:15). This is apparent within my own ethnography. My informant interprets the information as she tells me about it. I then interpret what I hear and write it down. Already my ethnographic writings have been interpreted twice.

Geertz is concerned with how thick description should be coherent in its descriptions. Although symbols are "often elusive, vague, fluctuating, and convoluted" they are "capable of being discovered through systematic empirical investigation" (Geertz, 1973:362). Cultural systems provide

coherence or they would not be systems. Coherence alone, however, cannot be proof of validity. Since "the force of our interpretations cannot rest, as they are now so often made to do, on the tightness with which they hold together, or the assurance with which they are argued," both coherence and authority are not validation of an analysis (Geertz, 1973:18).

Geertz suggests that instead of relying upon authority, coherence, and logic we should base our determination of the validity of an analysis on how it describes the culture. He asserts that thick description allows both the ethnographer and reader to measure the validity of the analysis because if the ethnography is "thick," the examples of cultural knowledge presented in context will support the interpretations of the analysis. The thick descriptions presented in this ethnography are an attempt to provide validity to the interpretations made within the anlysis of the culture scene of the operating room nurse.

Geertz's vision of interpretive anthropology "is not to codify abstract regularities but to make thick description possible, not to generalize across cases but to generalize within them" (Geertz, 1973:26). Geertz holds that cultural theory's goal is not to be predictive. By chance a theory or method may be able to predict an event, but with much of human behavior being inconsistent, outcomes are unpredictable and ultimately preventing the use of a theory or method as a predictive tool. Therefore, he believes that theories are most useful when they describe something in a static situation

and keep on describing as the culture changes (Geertz, 1973:26). One of the goals of this analysis is to met this standard. Geertz further states that in an interpretive science, such as interpretive anthropology, the two distinctions of 'inscription' ('thick description') and 'specification' ('diagnosis') delineate the two functions of documenting the meaning of social actions for the actors and what this knowledge teaches the anthropologist about social life in general (Geertz, 1973:27). So, the double task is to describe how the symbolic system is constructed by the native and then translate this construction into anthropological terms. Geertz states that "the aim is to draw large conclusions from small, but very densely textured facts; to support broad assertions about the role of culture in the construction of collective life by engaging them exactly with complex specifics" (Geertz, 1973:28). This is the basis by which he proposes the use of thick description. While understanding that this analytical method can never truly be complete, disregarding interpretation can only lead to anthropological collection, such as Jacob and Wilhelm Grimm collecting traditional fairy tales without interpreting these myths. But if this were to happen, the study of culture would become ethnographic assertion where the only validity would be author-based authority (Geertz, 1973:29). Geertz's main concern has been that "nothing will discredit a semiotic approach to culture more quickly than allowing it to drift into a combination of institutionism and alchemy, no matter how

elegantly the intuitions are expressed or how modern the alchemy is made to look" (Geertz, 1973:30). In summation Geertz states,

> To look at the symbolic dimensions of social action -- art, religion, ideology, science, law, morality, common sense -- is not to turn away from the existential dilemmas of life for some empyrean realm of de-emotionalized forms; it is to plunge into the midst of them. The essential vocation of interpretive anthropology is not to answer our deepest questions, but to make available to us answers that others, guarding other sheep in other valleys, have given, and thus to include them in the consultable record of what man has said. (1973:30)

CHAPTER III

ETHNOSCIENCE

Ethnoscience (also termed “new ethnography” and “ethnographic semantics”) attempts to specify explicitly what native speakers know about their culture. It attempts to describe completely the systems of folk classifications used by a particular cultural group (Sturtevant, 1964:99). The form of ethnoscience used within this thesis concerns itself with the part of cultural knowledge that is accessible through the language of the informant rather than the behavior (Werner and Fenton, 1970:539).

The term "new ethnography" was used to emphasize that new methods could be used to improve knowledge of a culture. By focusing on the language used by an informant, the ethnographer could develop a detailed map of the cultural categories that were significant to the informant.

Ethnoscience is an important theoretical step within the history of anthropology. For the first time, folk categories were the primary concern of analysis rather than generalized "scientific" categories. The ethnographic description aspired to be specific enough so that a complete stranger to the culture could know how to act from its description (Goodenough, 1956:195). Linguistic knowledge alone is not enough for a person to function within a

culture; the person must have specific knowledge of how and when the different terms are applied (Frake, 1964b:127).

Relational Theory of Meaning

For ethnographic analysis, ethnoscience uses a relational theory of meaning. This approach characterizes culture as a system of meanings that assumes that there is a relationship between language and symbols that can be discovered. The basic assertions of this theory are:

> 1. Cultural meaning systems are encoded in symbols. 2. Language is the primary symbol system that encodes cultural meaning in every society. Language can be used to talk about all other encoded symbols. 3. The meaning of any symbol is its relationship to other symbols in a particular culture. 4. The task of ethnography is to decode cultural symbols and identify the underlying coding rules. This can be accomplished by discovering the relationships among cultural symbols. (Spradley, 1979b:99)

The smallest unit of cultural meaning is the symbol. Symbols are categorized within "domains." The categorical name of any given domain is the "cover term" (e.g., clothing, furniture, and building). "Included terms" are the individual folk terms which belong to the domain cover term (e.g., clothing is the cover term and shoes, shirts, and pants are included terms). The included terms are linked together by a semantic relationship and have a definite boundary. These terms are contained within a larger “semiotic” framework, a structural framework containing language and symbols.

The Developmental Research Sequence

The developmental research sequence was developed by James P. Spradley and is used as the method for eliciting and analyzing cultural

knowledge in this thesis. In using a method that has been used successfully in many different analyses, this analysis gains a measure of validation. Spradley states that a systematic approach, such as the developmental research sequence, provides basic tools with which to study the language and categories of informants.

The ethnographic interview is the backbone of the developmental research sequence. Through the use of interviews that seek to elicit cultural data, thick description can be accomplished. There are several axioms that provide the basis for the ethnographic interview using the developmental research method. The single technique axiom stipulates that the focus within ethnographic research should be the ethnographic interview. While this is not considered the best or only method used within ethnography (other methods include participant observation, recording of life histories, projective tests, and others), the ethnographic interview can be used as a fundamental tool that facilitates general and specific data about a particular culture.

The task identification axiom stipulates the basic tasks and specific objectives required by the field technique. By using this technique one can learn basic skills involved with ethnography and accomplish original research. The developmental sequence axiom stipulates that the sequence of steps helps focus the research. When an ethnography is begun a researcher can be inundated with too many cultural traits at one time. A sequence-

oriented method can allow a systematic analysis that is efficient and manageable.

The original research axiom stipulates that original research be completed through "interviewing skills, techniques for analysis of interview data, suggestions for organizing a cultural description based on interview, and specific guidelines for writing the final ethnographic description" (Spradley, 1979b:229). It is often difficult for a beginning ethnographer to attempt original research. The standard means by which most anthropologists are introduced to ethnography is during their dissertation research when they are immersed within a culture different from their own. The ethnographic interview serves as a tool that can be developed into the repertoire by an ethnographer before research takes place.

Finally, the problem solving axiom stipulates that the methodology used to write the ethnography should address basic problems often found in research such as informant problems, conceptual problems, analysis problems, and writing problems. Informant problems occur when the ethnographer and informant have difficulty building rapport that will enable ethnographic interviews to work. Conceptual problems are often brought about because the ethnographer does not have a specific research goal. Analysis problems prevent the ethnographer from completing an analysis of the cultural data that have been collected. Writing problems occur when the

ethnographer is attempting to present the findings of the cultural analysis in written form.

The ethnographic interview is delimited as the basic ethnographic tool that is used by this thesis for eliciting cultural categories. Although there are other tools that may be used to discover cultural knowledge, it is Spradley's intention to provide a basic method, the developmental research sequence, which can use the ethnographic interview as the backbone of any ethnographic endeavor. To illustrate the basis for the use of the developmental research sequence, the basic assumptions of ethnoscience are discussed next.

Sturtevant's Principles of Ethnoscience

Sturtevant (1964) identifies several principles of ethnoscience, the first of which is the explanation of culture by emic terms rather than etic ones. Kenneth Pike was the first anthropologist to distinguish between emic and etic cultural explanations (1967:37). He took the term etic from phonetics, the study of all usable sounds in speech production. The term emic came from phonemics, the study of sounds significant to a particular language group. These terms are used to identify cultural information that is either in the terms of the anthropologist (etic) or native culture being described (emic). Emic explanations of cultural phenomena use the terms and meaning of the culture group being studied while etic explanations are the objective or scientific terms useful when doing cross-cultural research. There are some

that criticize this approach because they believe that the person who is conducting the study places emic categories upon the culture. Regardless of this criticism, ethnoscience attempts "to discover and describe the behavioral system in its own terms [emic terms], identifying not only the structural units but also the structural classes to which they belong" (French, 1963:398 as quoted by Sturtevant, 1964:102).

The second principle that Sturtevant identifies is that domains are distinct units of cultural knowledge that include subsets of terms. Each term of cultural knowledge is bound within a system. The assumption of ethnoscience is that this system is constructed of limiting terms (the smallest specific reference), cover terms (generalized references), and domains (categories of cover terms). In more recent use of ethnoscience, "themes" are identified as even larger units of cultural knowledge. There are three dimensions of cultural themes: the cognitive, tacit or explicit, and relationship. The cognitive dimension provides that themes are constructed of different symbols linked together within a cognitive map which becomes something that people believe (e.g., "Surgeons hands don't shake"). Most cultural themes are tacit, meaning that the cultural participants are unaware or are unable to verbally express them. Sometimes themes are explicit and are easily stated by the informants. Some themes are constructed from relationships within the culture scene.

Sturtevant's third principle is that terminological systems are apparent in ethnoscientific analysis as semantic relationships. Semantic relationships are of two types, universal and informant-expressed. Universal semantic relationships include basic types that have been proposed by ethnographers (e.g., X is a type of Y, X is used for Y, and X is a reason for doing Y) (Spradley, 1976b: 111). Informant-expressed semantic relationships are sometimes similar to universal semantic relationships, but cannot always be placed within a particular type (e.g., "A general surgeon can assist in any surgery, but can also lead in abdominal surgery"). It is best to rely upon the informant's semantic relationships, which will provide an emic interpretation (e.g., "Biogel is a type of surgical glove").

The fourth principle Sturtevant identifies is that paradigms and componential analysis are key to discovering cultural knowledge. A paradigm consists of a contrast set. "This is a class of mutually exclusive segregates which occur in the same culturally relevant environment" (Sturtevant, 1964:107). Componential analysis, which was first developed to analyze linguistic forms, is an integral component of ethnoscience (Goodenough, 1956:195). Componential analysis is the examination of how terms or categories are contrasted with each other (Spradley and McCurdy, 1975:97).

Componential analysis is applied to a set of terms which form a culturally relevant domain and proceeds by recognizing semantic distinctions

(components) which apportion the terms of the set into contrasting sub-sets, such that every item is distinguished from every other item by at least one component (Burling, 1964:20).

The fifth principle Sturtevant identifies is that taxonomies are useful in examining how different terms are related to each other. "In a taxonomy, there is a series of hierarchical levels, with each segregate at one level included in (only) one segregate at the next higher level" (Sturtevant, 1964:110-111). For example, running, walking, and skipping are ways to get from place to place which are often grouped together as one segregate when cars, buses, and trains are grouped in another. "A taxonomy is a set of categories organized on the principle of inclusion. Inclusion occurs when a general category is used to refer to a group of more specific ones" (Spradley and McCurdy, 1975:87).

The sixth and final principle Sturtevant identifies as the discovery axioms. The relational axiom stipulates that the meaning of a symbol can be discovered by examining how it is related to all other symbols. The use axiom asserts that the meaning of a symbol can be discovered by seeking how it is used rather than what it means. The similarity axiom states that the meaning of a symbol can be discovered by finding how it is similar to other symbols. The contrast axiom stipulates that the meaning of a symbol can be discovered by examining how it is different from other symbols. (see Spradley, 1976b:156-7)

This thesis was conceived and the analysis within accomplished through the use of the axioms described above and the developmental research sequence. The following is a discussion of how this thesis was written.

Ethnographic Writing

There are six levels of ethnographic writing: (1) universal statements, (2) cross-cultural descriptive statements, (3) group general statements, (4) scene general statements, (5) domain general statements, and (6) specific incident statements. Universal statements are true of every culture (e.g., children's identity is different from the identity of adults). Cross-cultural descriptive statements contain comments about two or more cultures that may be true for some cultures but not all. General statements describe a society or cultural group with statements that may appear to be specific but only yield generalized information. General statements about specific cultural scenes are narrower in focus and may or may not include description of cultural themes. Specific statements include explanation of a cultural domain. Specific incident statements are the accounts given by the informant about actual cultural events (see Spradley, 1976b:207-210).

Examples of Ethnographic Analyses

This ethnography seeks to provide thick descriptions of the culture scene of the operating room nurse, much as Katherine Carlson did for the culture scene of night club waitresses in her article, "Reciprocity in the

Marketplace: Tipping in an Urban Nightclub" (1977). Carlson provided a thick description by identifying the domains and semantic relationships within the culture scene. But this is not the only way a thick description can be presented.

In his article "Down and Out in Skid Row" (1972d), James P. Spradley does not use the term thick description, but instead focuses on taxonomic analysis. My thesis seeks to provide a taxonomic analysis of the domain of "picking a case" similar to Spradley's examination of "ways to make a jug." Both analyze the cultural terminology in a form that is structured and representative. While taxonomic analysis illustrates the terms associated within one domain, componential analysis allows terms to be contrasted within one domain.

This thesis describes a domain and analyzes it by using componential analysis. An example of the use of componential analysis can be seen in James P. Spradley's "Adaptive Strategies of Urban Nomads: The Ethnoscience of Tramp Culture" (1972c). Just as Spradley provides an analysis of the domain of "flops," this thesis provides an analysis of the domain of "picking a case." Through listing the types of flops and their dimensions of contrast between them, Spradley visually represents categories of the culture. Through the aforementioned structures of representing data, this thesis also attempts to provide detailed information about culture in written form.

This thesis explores ethnography at the fifth level of ethnographic writing, specific statements about a cultural domain, such as Charles O. Frake accomplished in "How to ask for a Drink in Subanun" (1964b). Frake begins his analysis by describing the definition, context, technique, encounter, and talk of drinking. Through examination of the domain of drinking, Frake uses specific examples and specific comments about the culture.

These methods and the assumptions that drive them are reflected in the developmental research sequence. Through a series of steps, the developmental research sequence provides a guided analysis from the gathering of cultural information to the final written ethnography. The following chapter outlines and explains the steps of the developmental research sequence and describes the use of thick description.

CHAPTER IV

THICK DESCRIPTION AND THE DEVELOPMENTAL RESEARCH SEQUENCE

This ethnography is constructed using the thick description of Clifford Geertz and the ethnoscience methodology called the Developmental Research Sequence" first presented by James P. Spradley in "The Ethnographic Interview" (1979b). This method is used to depict a way of life by emic terms through thick descriptions that will communicate to outsiders the full context and meaning of a culture. Through all of the steps of the developmental research sequence, the thick description of the surgical nurse in the operating room was the goal. Since thick description is difficult without specific methods of gathering data, the developmental research sequence was used to ease this problem.

The following steps, in order, are used within the developmental research sequence: 1) identification of a useful informant, 2) completion of ethnographic interviews, 3) collection of ethnographic records, 4) asking of descriptive questions, 5) and 6) identification and analysis of cultural domains, 7) asking of structural questions, 8) completion of a taxonomic

analysis, 9) asking of contrast questions, 10) completion of a componential analysis, 11) discovering cultural themes, and 12) writing an ethnography.

The first step in the developmental research sequence presented by Spradley is locating an informant. There are several minimal requirements that facilitate knowing whether an informant will be useful for ethnographic research. A potential informant must be thoroughly enculturated within the culture scene that is being researched. A potential informant should still be involved with the culture scene being examined at the time the ethnographic interviews are being conducted.

The ethnographer must be unfamiliar with the culture scene about which the potential informant is being interviewed. This prevents the ethnographer from being familiar with the data and makes it more likely that the data may be collected and analyzed in a way that more closely represents the cultural scene.

The potential informant must be able to provide enough time for the ethnographic interviews to be completed. The potential informant must be nonanalytic in their observations and descriptions. An informant who has a social science background or one who is editing the information to help the

ethnographer get to the most important aspects of the culture scene will provide inadequate and misrepresentative information.

The informant that is referenced within this ethnography adhered to the stipulations of what an informant should be. Through many years within the culture scene and continued participation, my informant could provide current information about the culture in context. My lack of knowledge about the culture allowed me to collect cultural information without misrepresenting the data due to familiarity. My informant has not been trained in social science method and was able to spend considerable time with me to complete interviews.

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in social science method and was able to spend considerable time with me to complete interviews.

The second step in the developmental research sequence is interviewing the informant. There are four major differences between friendly conversation and ethnographic interview which can all be illustrated in my interview notes (Appendix III). First, during a friendly conversation both parties engage in questioning as part of the conversation. During ethnographic interviews the ethnographer is the sole questioner while the informant answers. Second, as ethnographic interviews develop, ethnographers will repeat the same question many times and in possibly different terminology to flesh out the answer; friendly conversations usually do not involve repetitive questioning. Third, during friendly conversations both parties will, at different times, purport interest and ignorance in what is being discussed by the other. During ethnographic interviews it is only the ethnographer that will show interest and ignorance of what is being stated. Fourth, ethnographers will encourage the informant to expand upon the ideas sometimes only alluded to until the element is completely explained; friendly conversations tend not to involve this form of discourse. During this step the beginnings of the thick description start taking shape.

The next step in the developmental research sequence is making an ethnographic record. It is important that notes, tape recordings, and any other documentation used to develop an ethnographic record denote the

perspective and language being used by, for example, in the case of an operating room nurse, the language used with a patient, another nurse, doctor, administrator, or non-medically trained people. This allows the compilation of cultural data on many levels. At one level, the data can reflect etic terms that may be used by the informant to communicate cultural information to others outside of the cultural group. At another level, the one being searched for in ethnoscientific research, emic terminology can be delimited so that it can be further examined in the ethnography.

There are several kinds of field notes. A condensed account represents an abstract of what actually occurred. An expanded account is a more complete version of a condensed account. A fieldwork journal contains the thoughts and observations of the ethnographer as an individual. Finally, analysis and observation notes reflect an intermediate link between raw interview notes and the final ethnography where analytical solutions and observations are made of the ethnographic record. While many types of field notes were kept for this thesis, an example of expanded and condensed accounts can be found in the interview notes (Appendix III).

Step four in the developmental research sequence is asking descriptive questions. Descriptive questions are used for two reasons, to gain rapport with the informant and to develop a general description of the culture scene. The rapport process evolves through four stages: (1) apprehension on the part of the ethnographer and informant, (2) exploration of the new relationship,

(3) cooperation based upon mutual trust, and (4) participation of the informant as a teacher or mentor to the ethnographer. While not all ethnographic relationships develop exactly through these steps, the sequence may be used as a model to refer to when rapport is in question.

There are four general types of descriptive questions used in ethnographic interviews. "Grand tour" questions are used to gain a very general idea about the culture scene (e.g., “Can you describe a typical night at work?”). "Mini-tour" questions narrow the general description to a more specific item (e.g., “How do you wash your hands before surgery?”). "Example questions" provide even more specific answers usually provided within the context of a story (e.g., “Could you give me an example of how long someone must stay in the recovery room after surgery before they are discharged to their room?”). Finally, "native-language" questions allow the informant to provide terms and phases that are used within the culture scene (e.g., “What do you call medical doctors in the operating room?”).

The fifth and sixth steps in the developmental research sequence are analyzing ethnographic interviews and making a domain analysis. Analyzing ethnographic interviews is best explained by describing how to make a domain analysis. There are several steps in a domain analysis. First, identify one semantic relationship to be analyzed (e.g., bio-gel is a type of surgical glove). Second, prepare a worksheet to show the included terms, semantic relationship, and cover term in a graphical form, usually in the

form of a list. Third, list sample informant statements that use or define the semantic relationship (e.g., "eye surgeons use micropedic gloves"). Fourth, develop possible other cover terms and included terms that may fit within the semantic relationship. Fifth, create structural questions for the domain that will allow the informant to verify the domain structure (e.g., "is orthopedic a type of surgical glove?"). Finally, sketch other domains that may be included within the culture scene for further study.

The next step in the developmental research sequence is asking structural questions which are used to elicit the structure and relationships between cultural domains and terms. There are five axioms for asking structural questions: concurrent, explanation, repetition, context, and cultural framework axioms. The concurrent axiom stipulates that structural questions are to be used concurrently with descriptive questions to complement each other in the information that both can provide. The explanation axiom stipulates that when structural questions are used within an ethnographic interview, often an explanation of the questioning may be required by the informant because the discussion may have the appearance of moving away from a friendly conversation and more towards an interview. The repetition axiom stipulates that structural question will need to be asked several different times in order to gain a greater degree of cultural insight. The context axiom stipulates that informant must be aware of the context under which the structural question is being ask so that they may answer

appropriately. Finally, the cultural framework axiom stipulates that the structural questions must be asked within the cultural framework of the informant, using the informant's terms.

There are five basic types of structural questions: verification, cover term, included term, substitution frame, and card sorting questions. Verification questions are used to verify or falsify analytical classifications of domains (e.g., "Are bio-gel's a type of surgical glove?"). Cover term questions elicit more cover terms from a known domain (e.g., "What are the different types of surgical gloves?"). Included term questions are used to discover new domains from a group of cover terms (e.g., "Are micro-optic, bio-gel, neutralene, and brown milled all the same type of thing?"). Substitution frame questions allow the informant to fill in the blank with included or cover terms (e.g., "Surgeons use _____ gloves."). Finally, card sorting questions can be used with any of the above mentioned questions and are often useful when a domain contains many included terms that are difficult for the ethnographer to differentiate apart.

Step eight in the developmental research sequence is making a taxonomic analysis. A taxonomic analysis involves several steps. First, chose a specific domain for analysis, such as picking a case. Next, select a substitution frame for the domain (for example "_____ is a type of _____"). Then, search for subsets of the included terms. Next, search for domains that the chosen domain may be included within. Then, create a draft taxonomy in

a form that differentiates between subsets and included terms within the domain. Next, verify the analysis with structural questions directed towards the informant (for example “are bovi’s used in heart surgery?”). Then, use more structural questions to complete the domain's included and cover terms (e.g., “are there any other types of equipment used in heart surgery?”). Finally, construct a completed taxonomy.

The next step in the developmental research sequence is asking contrast questions. Contrast questions are of seven types: contrast verification, directed contrast, dyadic contrast, triadic contrast, contrast set sorting, twenty question game, and rating questions. Contrast verification questions are used to verify a contrast elicited by prior interviews (e.g., “Do I remember correctly that regular white and orthopedic gloves have interior powder and bio-gel has none?”). Directed contrast questions use a known contrast and ask if there are other contrast terms (e.g., “Regular white has powder and bio-gel has none, are there any other gloves that have different areas of powder?”). Dyadic contrast questions ask whether the informant can identify a contrast between two terms (e.g., “What is the difference between regular white and bio-gel gloves?”). Triadic contrast questions use three terms to contrast two against one or all against each other (e.g., “What differentiates between regular white, neutralene, and brown milled gloves?”). Contrast set sorting questions facilitates sorting cards by the informant, inscribed with included terms, into two or more sets. Twenty questions game

involves stating included terms and asking the informant to state the set or cover term for each included term. Finally, rating questions attempt to order terms by some type of rank (e.g., "Could you rank the different types of gloves by order of use by Neuro surgeons?").

The tenth step in the developmental research sequence is making a componential analysis. Creating a componential analysis involves eight steps. First, identify a contrast set for analysis (e.g., "picking a case"). Second, compile all of the contrasts found during the interviews. Third, prepare a paradigm worksheet where the contrast set is listed in the right hand column and the dimensions of contrast are across the top. Fourth, identify and compare the dimensions of contrast that are binary in value (e.g., length of time a surgery takes). Fifth, identify and compare the dimensions of contrast that have multiple values (e.g., other trays used during different surgeries). Sixth, create contrast questions for the dimensions of contrast that are missing for the terms. Seventh, interview the informant to compile the missing data. Eighth, complete the componential analysis.

The next step in the developmental research sequence is discovering cultural themes which are defined as cultural idioms that represent why the cultural structure exists and how it is maintained. There are nine strategies for finding cultural themes. First, immerse yourself in the culture for a great deal of time until the theme becomes apparent. Second, make a cultural

inventory of all the research material and upon further examination themes can become apparent. Third, make and examine a componential analysis of the cover terms. Fourth, examine the dimensions of contrast between different included terms. Fifth, search for domains, which order the culture scene. Sixth, make a schematic diagram of the cultural scene. Finally, search for universal themes (e.g., social conflict, cultural contradictions, or solving problems).

Another method used for this thesis which is not mentioned in the developmental research sequence is using the thick description. By writing a thick description of the culture being anlyzed, one may be able to find themes clearly exemplified within the text. By studying the culture in it's context, here being the thick description of the culture, themes are apparent since the idiosycrancies of cultural behavior can be seen and interpreted.

The twelfth and final step in the developmental research sequence is writing an ethnography. Instead of viewing an ethnography as one task, the developmental research sequence views it as a series of steps. The first step is to select an audience that will be reading the ethnography (e.g., the readers of a scientific journal or thesis). Step two, select a thesis that will be presented. Step three, make a list of the topics and create an outline. Step four, write rough drafts of each part of the outline. Step five, revise the outline and create section headings. Step six, edit the rough draft. Step

seven, write the introduction and conclusion. Step eight, insert examples and edit the copy. Step nine, write the final draft.

Summary

The method of the developmental research sequence was chosen for this ethnography because it has been used successfully in other ethnographies and has become an accepted and valid method for researching culture. Although each step of this method was used in the development of this thesis, the ethnography and analysis is not presented in a step by step fashion, but in five sections. First, my informant is presented and explained. Second, the physical setting of the operating room is described and explained. Third, the kinds of surgeries/services/cases are examined. Fourth, the personnel of the operating room are described. Fifth, a surgical timeline is given for normal surgeries. Finally, the domain of "picking a case" is analyzed.

In the five sections presented in the next chapter, taxonomies are used to organize the emic terms collected during ethnographic interviews. Taxonomy is the list of the included terms of a cover term. The taxonomic analyses are shown in the form of numerical lists where the first number represents a cover term (e.g., cars). The second number represents the included terms (e.g., Toyota, Nissan, and Ford). The third number represents the sub-included terms (e.g., Escort, Mustang, and Thunderbird). For example:

1.1 Toyota
1.2 Ford
1.2.1 Escort
1.2.2 Mustang
1.2.3 Thunderbird
1.3 Nissan

Each one of the taxonomies included within the next chapter is independent of each other. Therefore they each begin with the designation "1.1" and continue numerically.

The componential analysis, which is included as Appendix I, is presented in a spreadsheet. The cover terms are on the left-hand column and the dimensions of contrast are in the top row. The dimensions of contrast are in the same taxonomic format and explained in a key at the end of the table. The "Y" and "N" represent yes and no, respectively.

CHAPTER V

THE OPERATING ROOM

Surgery

The art of surgery has its earliest beginnings with prehistoric healers attempting to remove projectile points, repair broken limbs, and relieve pressure in the skull. In Western culture, surgery peaked as more an act of heroism than a healing art in the early 1800's. For example, Fergusson of King's College Hospital claimed that he could amputate a leg at the thigh in three and a half minutes (Wangensteen and Wangensteen, 1978:455). Until the middle of the 1800's, surgery was limited to what in today's standards would be considered simple operations since the patient needed to remain awake and could not endure extreme internal trauma which would lead to the death of the patient. Though invasive surgery was limited, excising external body parts was common practice. In one often noted occurrence, a woman silently endured a breast removal without anesthesia and was able to walk out of the room after the surgery was completed (Wangensteen and Wangensteen, 1978:456).

Surgery changed drastically circa 1850 when anesthetics were discovered (Dock and Stewart, 1931:381). Now a patient could be rendered

unconscious with a reasonable degree of certainty that they could be revived. This enabled surgeons to delve deeper within the patient and attempt more drastic operations. Although more than half of interested students were lost with the presumed thought that surgery had lost some of it's heroic appeal, the techniques and operations that could be performed increased at a phenomenal rate.

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Operating Room

Along with the invention of anethesia, the operating room came into existence in the late 1800's. Before that time, surgery was performed either in homes or in a surgical amphitheatre. Until the 1800's, hospitals served the function more of a nursing home than a place to be healed. They were places for the elderly and infirm to die. Hence surgeons performed their art in the homes of their patients, usually in the bedroom or kitchen with the patientss family and interested onlookers present.

The surgical amphitheatre served as an instructional arena for masters of surgery to teach their students. These ranged from small rooms inside an instructional institution to grand halls and auditoriums designed so that hundreds could view the procedures. As more was understood about bacteria and other means of infection, the amphitheater slowly changed into glass partitioned teaching facilities where the operating room and a room for viewing were segregated. (Wangensteen and Wangensteen, 1978:462-8)

With the advances of surgery and medicine, hospitals became healing centers rather than merely a place to retire for death. During the period

from 1870 to 1910, the number of hospitals within the United States grew from about 200 to over 4,000 (Rutkow, 1998:229). As advances in technology, such as x-rays, became available for surgical use, they were introduced into the hospital.

Summary

The operating room was developed for many reasons. It is a place in which the surgeons can work that is sterile, the equipment can be stored and available for use by the during the operation, medical personnel can be centered in and around the hospital, as well as historical issues and influences. Since operating rooms were created within hospitals the patient can recover with full time nursing after the procedure.

Operating rooms have changed along with technological advances in infection control, surgical method, and equipment used. Presently the operating room is a highly technological arena for surgeons, nurses, and technicians to provide healing services for their clients. While the exact layout of each operating room is different between hospitals, the basic needs are the same.

CHAPTER VI

PICKING A CASE

Informant

The first step in the developmental research sequence, and for almost any ethnography, is locating an informant. After a short search for someone who was well entrenched within the culture scene, I chose my friend's mother, Eleanor (the name is fictitious and chosen by her to be used for this ethnography). I asked my future informant if she would be willing to help me complete research for my thesis by allowing me to interview her. After mere seconds of thought she agreed to be interviewed.

Eleanor has been a surgical nurse for over 25 years, mainly working at two hospitals during this time. Eleanor participated in the first kidney transplant surgery at John Hopkins Hospital and worked as a volunteer with Mother Theresa in India. While being involved with nursing, two children, and a passion for reading, her main goal now is retirement.

When we sat down to do the first ethnographic interview, Eleanor was unsure what information I wanted to know. After attempting to explain that I wanted to know anything and everything that she thought important, I resorted to grand tour questions. These questions tended to lead to more

specific questions. Eleanor was extremely enthusiastic and at times I had to tell her that she had told me enough. During subsequent interviews using descriptive, structural, and contrast questions, Eleanor appeared not tohold anything back and was delighted by my interest in her work.

Physical Setting

The physical setting of a culture scene is important because it places the actions of the participants within a context. A description of the physical setting includes illustrating the boundaries and included objects that are defined by the informant. Eleanor, when asked to describe the operating room, began by explaining auditory signals within the hospital. There is a loudspeaker system in the hospital and several codes that are used in emergencies. The following is in taxonomic format where each is an included term.

1.1 Code Gray -- a patient from the emergency room is coming to the operating room.
1.2 Code White -- a patient under full cardiac arrest is coming into the emergency room.
1.3 Code Blue -- a respiratory or vascular arrested patient is within the hospital.
1.4 Code Pink -- a child over a year old in the hospital or coming to the hospital is respiratory or vascular arrested.
1.5 Code Green -- a disturbance within the hospital and security is requested.
1.6 Code Red -- a fire within the hospital.

1.7 Code Yellow or Orange -- an emergency outside the hospital, for example a disaster such as an earthquake or plane crash.

Eleanor claims that during the night shift, the staff can hear the speaker come on before announcements are broadcast and all the surgical personnel hold their breaths in the hope it is nothing serious.

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Eleanor claims that during the night shift, the staff can hear the speaker come on before announcements are broadcast and all the surgical personnel hold their breaths in the hope it is nothing serious.

The physical setting of the operatimg room varies according to what type of surgery is being performed (for an illustration of basic operating room plans see Appendix II). The operating room is square with two doors at opposite ends, one to the sub-sterile area and the other to the unsterile area. The sub-sterile area contains all the equipment needed for surgery: autoclaves, case carts, sterile packs, etc. The unsterile area is where people come in and out of the operating rooms. In the center of the room is the operating table, which measures approximately six feet by two feet and can be adjusted to various heights, according to the type of surgical position required. There is an extension used for patients who are taller than six feet called the foot extension. The light that comes down from the ceiling has four lamps that can each be directed different ways.

Around the table and against the walls are pieces of equipment that vary according to the surgery being performed. The basic contents of an operating room are an anesthesia cart, gas machine, bovi (cooker), wire cabinet, linen hamper, brown hamper, two long tables, two MAYO stands, two ring stands, two suction machines, two IV pulls, and some low stools. The anesthesia cart is placed next to the operating table and contains all the drugs for the anesthesiologist. The gas machine provides air, oxygen, and nitrous oxide for the anesthesiologist. The bovi, also called a cooker or valley lab machine, is used to cauterize and cut flesh during surgery. The wire cabinet rests against one of the walls and is used to store supplies for

surgery. Two hampers are against the walls as well. Linen used during the surgery that will later be cleaned and used again is placed in the linen hamper. The brown hamper is used to dispose of trash that is not contaminated. One long table near the door to the substerile area is used to open material brought into the surgery room. The other long table is placed against a wall and is used for miscellaneous equipment. The two MAYO stands are placed next to the operating table and are used for the instrumentation. The two ring stands are used for basins with solutions in them. There are two suction machines, one at the head of the patient and one at the foot as a back up, that either suction blood, mucus, or irrigate with saline. The suction machine also acts as a plume evacuator when using the cooker. The IV pulls at both sides of the patient's head are used to hook the drapes that cover the patient and hold IV solutions. Throughout the operating room there are low stools, which can be stacked for height, that are used for sitting and standing. Five lines come into the room from the ceiling and are designated as followings:

1.1 Yellow -- air to the anesthesia cart
1.2 Green -- oxygen to the anesthesia cart
1.3 Blue -- nitrous oxide to the anesthesia cart
1.4 White -- suction
1.5 Black -- nitrogen to the drills

There are other assorted items in the room during different types of surgeries. These are listed in the componential analysis and will be discussed in more detail in the later section on "picking a case."

Kinds of Surgeries/Services/Cases

The largest domain that structures the cultural scene of the operating room is "kinds of surgeries/services/cases." Eleanor differentiated between the types of surgeries, she stated that they could be called surgeries, services, or cases and were grouped according to the body part being operated on. All equipment, surgeries, and patients relate to this domain. Surgery is a cover term that is used when describing general occurrences. The term service is used when describing people who perform in a type of surgery. The term case is used when describing an individual surgery or event. The following list shows the type of surgeries and relation to the body part(s) they involve:

1.1 Heart -- Heart
1.2 Vascular -- Veins and arteries
1.3 Neuro -- Brain
1.4 Orthopedic -- Bone
1.5 Pulmonary -- Lungs
1.6 General -- Thyroid, mastectomy, warts
1.7 OBGYN -- Birth and sexual organs
1.8 Eye -- Eye
1.9 Dental -- Teeth and jaw
1.10 Plastic -- Skin, tendons, muscles, and face
1.11 GU -- Gastro-intestinal tract
1.12 ENT -- Ears, nose, and throat
1.13 Harvest -- Heart, arteries, lungs, kidneys, liver, and eyes (from a deceased patient)

Surgeons specialize and perform only one type of surgery. General surgeons usually assist specialized surgeons or perform surgeries on the abdomen. Nurses can work in any surgery, but usually prefer to work in one service.

Harvest surgeries are done by Heart, Vascular, Pulmonary, Eye, and GU surgeons working in teams of two.

Personnel

The participants of the culture scene of the operating room follow a strictly defined scheme. Nurses follow a hierarchy according to level, time worked, and the service they are assigned to. First, there is a director of all the nurses within the hospital. Beneath the director there are managers. Beneath the managers there are day, evening, and night supervisors of each floor and all operating rooms. The supervisors are called head or lead nurses interchangeably. Each of these supervisors work an assigned shift: day supervisors 7 AM to 3 PM, evening supervisors 3 PM to 11 PM, and night supervisors 11 PM to 7 AM. The following taxonomy shows the different personnel during the different shifts in the operating rooms.

1.1 Day
1.1.1 Head/lead nurse
1.1.2 32 RN's and scrub techs
1.1.3 4 orderlies
1.1.4 2 housekeepers
1.1.5 6 staff to pick/clean
2.1 Evening
2.1.1 Head/lead nurse
2.1.2 12 RN's and scrub techs
2.1.3 2 orderlies
2.1.4 At 8:30 PM 3 housekeepers
2.1.5 4 staff to pick/clean
3.1 Night
3.1.1 Head/lead nurse
3.1.2 RN's on call and 1 scrub tech
3.1.3 2 orderlies
3.1.4 Until 5 PM 3 housekeepers

3.1.5 1 staff to pick/clean

Eleanor is the night supervisor of the operating room at her hospital. If a surgery runs over a shift, it is voluntary whether the nurses continue working. Each nurse is assigned to a service, e.g., Neuro, Orthopedic, OBGYN, etc. There is a head/lead nurse, assistant head, and Registered Nurse (RN) within each of the services. Eleanor is an RN on the Neuro team, a head/ lead nurse cannot be in charge of a service and the head/lead of a service must work the day shift.

There are usually five people in the operating room during surgery. There is the major surgeon, who is usually a specialist and who actually performs the surgery. There is an assistant to the surgeon who is commonly a general surgeon, but there is a new nurse category called an R.N.F.A. (Registered Nurse First Assistant) who can take the place of a general surgeon in assisting a major surgeon. According to Eleanor, "that's a new position which has just become available in the last eight to five years because of the insurance companies' not wanting to pay a doctor an assistance fee." There is a scrub nurse who handles all the sterile instruments. Eleanor stated, "if there is another RN on, I like to scrub." There is also a circulating nurse who circulates around the room and is usually the nurse in charge; Eleanor often fulfills this capacity. Lastly, there is an anesthesiologist, who puts the patient to sleep, watches the patients vital signs, administers most of the medications, and wakes the patient up.

When there is a complex surgery, there can be two major surgeons. When asked whether there were ever more than two surgeons Eleanor said, "the only time that would be is when we do a harvest and they, major surgeons, would come in tandem. A harvest is done on somebody who has died and we're harvesting the organs for transplant."

All the people in the operating room wear cotton scrubs. The scrubs for males are green while the female scrubs are royal blue. The reason for the color difference is that the scrubs are constructed differently for the physical differences of the sexes. Women can wear either scrubs with trousers or dresses depending upon personal preference. Heavy paper blue shoe covers are worn over the shoes. These come in only two sizes, large and extra-large. There are five different types of elastic blue paper headgear. Orthopedic surgery uses a type of headgear that covers everything but the face to protect the patient. Only underwear is worn underneath the scrubs, unless it is cold and then a T-shirt may be worn.

Surgical Timeline

Along with the structure of surgery types and personnel there is a structure by which all surgeries are completed. Each patient that comes into the operating room must follow procedures before, during, and after the surgery. If the surgery is an emergency, the patient comes directly from the emergency room. The patient comes on a gurney with a crash cart, which has a diffibulator, EKG machine, and emergency drugs. This patient will have

already been admitted to the hospital, had blood tests, and had X-rays taken in the emergency room if time allowed.

In a normal, scheduled surgery, the patient is admitted to the hospital and his/her blood, X-rays, and EKG are taken. A CPR certified orderly picks up the patient and brings him/her to the operating room. If the patient is critical a nurse goes with the orderly. During the night shift, when the patient is scheduled, the head/lead nurse calls in an anesthesiologist, surgeon, and RNs.

The nurses then go to the back hall, which is a sub-sterile area where the supplies are kept to pick the case. There are two cards that are used to determine what items are needed for a particular surgery. First, there is a card for the type of surgery (e.g., appendectomy), that contains the basic instrumentation and equipment needed for surgery. The second card is the doctor's personnel card, which contains what they prefer to use during the particular surgery e.g., sutures and other instrumentation. Towels are put on the back table in the operating room for the doctors to dry their hands after scrubbing.

When the patient is brought to the holding area, a nurse meets the patient. The IV is started and the nurse goes over the patient's pre-operative checklist. First the nurse looks at the patient's card to check the name, admitted date, room number, doctor's name, and birthdate. Then the nurse checks for the following: a red arm band that denotes allergies, a blue arm

band that denotes no allergies, false eyeballs, contacts, false teeth, jewelry, and any other hardware. She also asks if the patient has any questions. When the patient is given medications before surgery, it dries out the mouth, so the nurse gives the patient lemon swabs. Eleanor stated that the patients "just love these." The nurse checks whether the patient has given blood and then calls the blood bank. Eleanor stressed that the nurse's attitude in the holding area can make the patient feel at ease and do better during and after the surgery. Meanwhile the operating room has been readied and opened.

When the patient comes into the operating room, the anesthesiologist puts the patient to sleep. A ground plate is taped to the patient so when the bovi is used the patient is not electrocuted. The area that is going to be operated on (the field) is shaved and prepped with iodine, non-allergenic visobec, or non-allergenic hepocleg solution by the circulating nurse. At this time the doctor(s) enter the operating room after scrubbing for approximately six minutes and dry their hands on the towels on the back table. The nurse (scrub nurse), who is sterile, helps doctors don their gowns and the circulating nurse ties them up in the back. The patient is then draped off. Any area not being operated on is covered with a sterile blue drape. The suctions and bovi(s) are hooked up. Then the surgery starts.

During surgery, the circulating nurse, the capacity that Eleanor usually fills, brings items that the doctor(s) needs during the surgery. Eleanor will get warm solutions to soak lap sponges. These are put in the

patient, to keep tissue warm; in a basin; and some in a graduated beaker for irrigating purposes. A second basin is prepared with distilled water to place instruments that will be washed off later. The doctor(s) may need cultures taken, more sutures, sponges, four-by-fours, or gloves, which Eleanor will provide.

The circulating nurse then begins the paperwork. There is a basic pack that is used for every surgery. The basic pack includes the following forms: two OR record sheets, three anesthesia records, two room charges, one pathology slip, one name tag, one lines-in, one prep, one picked case, one anesthesia charge, and one pharmacy slip. The two OR record sheets contain everything that happened during the surgery and when. This is the record that is kept on permanent file in the hospital. The three anesthesia records contain all the information on the drugs and the condition of the patient from the anesthesiologist. The two room charges forms contain the time the surgery took and items used during the surgery that are charged to the patient. The pathology slip contains all the information from any samples that were taken from the patient, for example a sample taken from a tumor to see if it is cancerous, called a frozen section or sample. The lines-in form contains what lines were put in the patient and where. The prep form contains information of the preparation of the patient before surgery. The picked case form records how the case was picked. The anesthesia charge form contains a record of the items used before and after the surgery by the

anesthesiologist that are charged to the patient, which include the following: intubate tube, needles, lines, pulse accenates, and temperature probe. The pharmacy slip records any drugs that the doctor used for the patient after surgery, which are then charged to the patient.

According to what surgery is performed, additions to the basic pack are made. There is one addition for Plastic-ENT-Dental, GU, Neuro, Vascular, two for Heart, and two for Orthopedic. The paperwork is completed after the surgery is finished. The paperwork covers anything and everything that happened during surgery to protect the hospital, doctors, and nurses from legal action on the part of the patient or insurance companies. According to Eleanor, "if it wasn't documented, it wasn't done." A person who checks for any errors in the paperwork receives all of the completed forms. If there are any mistakes, the forms are posted on a special board for everyone to see.

The recovery nurse is called when the surgery is almost finished. The patient is closed and the area the patient was operated on is cleaned and redressed with four-by-fours (4 inch by 4 inch gauze) and tape. The bovi is turned off and the suction is discontinued and given to the anesthesiologist to suction any mucus that the patient has when they wake up. The drapes are then removed and the bovi pad is taken off the patient. The patient is taken to the recovery room when they are able to swallow and answer simple questions. A hammock like device is used to take the patient off the surgery table and place them on a gurney in the recovery room.

The patient usually stays in the recovery room for approximately one hour before he/she is discharged to a hospital room. In the recovery room, the patient is hooked up to a blood pressure cuff and an oxygen mask, to blow off the anesthesia. Oxygen saturation is monitored through on of the patient's fingernails, and an EKG monitors the patient's heart and respiration. A RN who is critical care certified stays with the patient the entire time they are in the recovery room. The patient leaves the recovery room only after he/she has stabilized and can answer questions about what day it is and personal information.

The operating room must be cleaned after every surgery. All the instruments must be washed by first autoclaving them to remove any bacteria and then put in a milk solution so they will not rust before they are placed on a tray again. All the sharps (needles and blades) are placed in a sharp's container. The suction canister is replaced. Everything that touched the patient is wrapped in red plastic bags that say "Contaminated--Danger" in both English and Spanish. Linen is either discarded or recycled. The room is washed from top to bottom with a matar solution (anti-bacterial) and then the room is ready for the next case.

Picking A Case

The componential analysis sheet (see Appendix I) illustrates the domain of picking a case. On the left-hand column are the types of surgeries, cases, or services. The top row consists of dimensions of contrast, which

include types of equipment used during surgeries. This componential analysis consists of normal surgeries; there may be some surgeries that require the use of different equipment or some surgeons who prefer different equipment.

The first dimension of contrast is very important for the head/lead nurse to know how to schedule the surgery. The amount of time it usually takes reflects the complexity of the surgery. The average case length defines the length of a case. Some surgeries may last up to twelve hours longer than average or two hours less, according to what complications arise or the severity of the case. Heart, Vascular, Neuro, and Orthopedic surgeries, on average, take longer than four hours because they are complex and involve time consuming work on the patient. Pulmonary, General, OBGYN, Eye, Dental, Plastic, GU, and ENT surgeries usually take from under two and a half-hours to over four hours. These vary the most because they may be either minor or major cases. Harvests are the most predictable, time-wise, because the patient is deceased, so complications arising from respiratory or heart difficulties are ruled out.

The dimension of contrast of surgeon position illustrates whether the surgeon will only stand or stand and sit during a regular surgery. Heart, Pulmonary, General, and Harvest surgeons usually stand because they are working on the abdomen or chest and must be above the patient to perform

the surgery. Other surgeons either stand or sit depending on the length of the surgery or the position required to perform the surgery.

The dimension of contrast of hierarchy of money for equipment and time for surgeries directly relates to case length and complexity, thus the amount of specialized equipment that is needed. Heart, Vascular, Neuro, and Orthopedic surgeries require the most specialized equipment and usually take the longest, so they are among the top four in the hierarchy. Harvests are funded by the agencies that are receiving the donor organs and they take a long time so this ranks along with heart surgery.

The dimension of contrast, surgical gloves, is important because Eleanor must provide the correct glove for the surgery type. Surgeons have a preference as to which type of glove they use during a surgery. The type of glove worn during any particular surgery directly relates to the fineness of the surgery. The following is a list of the glove types:

Thickness	Glove Type	Talc
Thinnest	Micro-optic	None
|	Regular White	Interior
|	Bio-gel	None
|	Neutralene	Exterior
|	Brown milled	Interior
Thickest	Orthopedic	Interior

Vascular, Pulmonary, Eye, and Plastic are the finest of the surgeries, have the least danger of the glove breaking, and the surgeons must feel what they are doing, so they wear the thinnest gloves. Orthopedic surgeons wear the thickest gloves because, while working with bone there is a great

possibility that the glove may be torn. Most doctors and nurses are now double gloving for protection. Talc makes it easier to get the glove on. The Neutralene glove is the one worn underneath so it has exterior powder. Some doctors have an allergy to talc so the micro-optic, Bio-gel, and Neutralene gloves do not have any powder on the interior.

The next dimension of contrast, which is a type in the domain of ancillary personnel, is the X-ray tech. The X-ray tech is the only person who would come into the operating room during a surgery, but other techs are used right before surgery. When asked what other techs would perform pre-operative work in different situations Eleanor stated:

> If there was a question about the patient's heart... we would have the EKG tech come in and do a twelve lead EKG. If the patient is having difficulty in breathing...[then] the respiratory tech would come in. [The] tech from the laboratory would come in and draw blood to either check on... the white count and the red count or just have that available in case the patient needs blood.

A X-ray tech can be used outside the operating room for any of the surgeries, but only Vascular, Neuro, General, GU, and Orthopedic surgeries use X-ray techs during an operation. The X-ray tech can either take X-rays of bones or soft tissues (e.g., veins and arteries) with the use of dye.

In picking a case, one of the largest categories in the domain of equipment is trays that are placed on the case cart. Each tray is pre-assembled with an assortment of instruments and retractors according to its use. Although each tray has a specific use, many can be used for any surgery

and some doctors ask for different trays and instruments that are not usually used during a particular surgery.

There are six trays that are shared by two or more types of surgeries. Overall there are more than seventy different types of trays that are pre-assembled. The dimension of contrast denoting other specialized trays is provided to illustrate the assortment of trays that are regularly used by surgery types. The following is a short description of the six-shared trays:

1.1 Lap (laporotory) tray -- General abdominal surgery
1.2 Basic tray -- Basic instruments and retractors for non-abdominal surgery
1.3 Deep tray -- Long instruments for surgery deep within the patient
1.4 GI tray -- Gastro-intestinal instruments and retractors
1.5 Chest tray -- Chest instruments and retractors
1.6 Large vascular tray -- Instruments for arteries

Trays are always used in any of type of surgery, but there are types of equipment and supplies that are specific to the doctor's preference. The first among these are two types of visual aids, the scope and microscope. The scope is a long thin instrument with a small camera on the end. It is used to enter the patient through a small opening in order to perform exploratory surgery. This leaves smaller scars, aids in recovery time, and lessens discomfort found in typical surgical practices. Surgery using the scope is called band-aid surgery. The picture can be seen on a small video screen or by looking through the end of the scope. Neuro, Orthopedic, Pulmonary, General, OBGYN, Dental, GU, and ENT surgeons currently use the scope, but more doctors are being trained to use it in almost any type of surgery.

The microscope is used during very fine surgery to help the surgeon see what they are doing. Vascular, Neuro, Orthopedic, Eye, Plastic, and ENT surgeries all currently employ the use of the microscope.

Another category in the dimension of contrast equipment is table attachments. Two or more surgery types share four table attachments that are not retractors. The back-frame table attachment allows the patient to be placed prone (face down) so surgery may be performed on the back and is used by both Neuro and Orthopedic surgeries. The horseshoe headrest table attachment allows the patient to be placed prone or supine (on back) so surgery may be performed and the face can be left exposed for the anesthesiologist. Neuro, Orthopedic, Dental, and ENT surgeries use this attachment. The operating table has a thin board for a patient's outstretched arm, so the lines into the patient can be exposed. The ironing board is another thin board but it is wider than a typical board, so that surgery may be performed on the arm and instruments can be placed on it. This enables surgery to be performed on the arm and/or hand. Vascular, Neuro, Orthopedic, and Plastic surgeries use the ironing board table attachment.

There are several other table attachments used by surgeons. Stirrups are used by OBGYN surgery to allow the surgeon to sit between the patient”s legs. Eye surgeons use the wrist rest table attachment so that they may rest their arms on it while looking in the microscope and leave their hands free to work on the patient while remaining relatively comfortable.

Orthopedic uses nine other table attachments. The peg board table attachment enables the patient to be placed in varying positions, usually for hip surgery, and be held in place with attachments (pegs) placed into the peg board. The knee table attachments allow the knee of the patient to be placed in a variety of positions for surgery. A T-bar is used to hold the arm of the patient straight up so that surgery may be performed on the shoulder. Fingertraps hold the patients' fingers to the T-bar. A cassette holder, measuring two feet by one foot, is placed on the table next to where the surgeon is working so X-rays can be taken without moving the patient from the operating table.

There are four additional miscellaneous room supplies used by two or more surgeries. Nitro drills, powered by Nitrous Oxide, drill into bone and are used by Neuro, Orthopedic, Dental, and ENT. Headlights are comparable to a miner's light and are used to provide a single beam of light to a small area during Heart, Neuro, Orthopedic, Eye, Dental, and ENT surgeries. A beanbag is used to place the patient in various positions when prone or supine is not adequate for Orthopedic, Pulmonary, General, and GU surgeries.

There are various other room supplies that are only used by one type of surgery and will be described in the order of appearance in the componential analysis. The heart-lung machine is used when the blood flow to the heart must be stopped so the patient can be operated on. The blood is run through

the machine and is added. A diffibulator has either external or internal paddles to electrically start a stopped heart or get an irregular heart to beat regularly. A slush basin makes a cold slush out of saline with which to pack the heart. A vascular cart contains extra valves and sutures and is kept outside the operating room unless it is needed. An X-ray machine is used with dye in Vascular surgery to see if a vein or artery is patent (clear). A Mayfield table is used above the body of the patient to hold vast amounts of equipment during surgery. Headpoints are drilled into the skull to hold it still and attached to a horseshoe headrest. A Malis is a "bipolar" bovi that is the same as a regular bovi, but has finer tips for more exact cooking. An air tourniquet is used to provide a bloodless field for surgery. A laminar flow is used to keep the room's air clean. A solution cart is for irrigating a patient with a saline solution. A cutting power machine provides power for cutting tools. Banks are carts with extra parts of different sizes in case one falls on the floor or a different size is needed. A handcart holds doctor's loops, which are hand held magnifying glasses. Three-inch tape is used to position patients and holds them still. A stapler cart contains staples used in place of sutures in intestinal surgery. A rolled towel is sometimes used to position patients. A donut is a pillow shaped like a donut that is also used to place a patient. A hand held lens allows the surgeon to have low magnification without a large apparatus. A Weckfield is a bipolar cooker with very fine tips for cooking. A cryo machine allows the surgeon to freeze tissue. Stryker

drills are electric drills for use with bone. Micro drills are small drill bits for fine drilling. The plastic suction machine allows the surgeon to perform liposuction on the patient.

The last group of additional room supplies is charge items. These are items that are charged to the patient for their use. The video with camera allows the surgeon to see on a large screen and tape what they see through a scope. Video with nitrous oxide is the same as the video with camera, but also provides nitrous oxide to enlarge the space inside the patient for better viewing. A waterpick is used is used to irrigate the patient with saline to clean an area. A warming blanket, discarded after surgery, is used to keep the patient warm, either because it is a long surgery or the patient is elderly. An eggcrate may be used with a warming blanket, to keep the patient more comfortable and is also discarded after surgery. A cell saver is used by Heart, Vascular, Orthopedic, and Pulmonary surgeries to rescue blood that is lost within the patient from bleeding. A blood-warming unit is placed on the IV lines coming into the patient to warm the fluids to body temperature.

The newest piece of equipment that has entered the operating room is the laser. It may be used in any type of surgery, although Eleanor has not seen it used in Orthopedic, Vascular, Chest, or Heart. There are four different types of lasers, argon, KTP, CO2, and coherent. The argon and KTP are very similar and it is the doctor's personal preference as to which one is used. CO2 lasers have a water source worked into the laser apparatus

because all lasers need water in the field in order not to burn out the laser probe. The coherent laser is only used for eye surgery and has the finest of all beams. While the laser is in use in the operating room, the doors are locked and protective eye gear is worn by the doctors, nurses, anesthesiologist, patient, and any other personnel in the room. Eleanor foresees the ability to use lasers for any surgery in the near future.

The surgical nurse must know all the differences and similarities between the types of surgeries. The categories, included terms, and other cultural information presented above illustrates the complexity of this knowledge. But culture is not limited to knowledge. The next chapter explores cultural themes to explain why surgical nurses must have and use this knowledge.

CHAPTER VII

CULTURAL THEMES

Introduction

An important assumption in the developmental research sequence is that human behavior is orderly; that underlying the complexity of linquistic terms, behaviors, and interpretations are several organizing themes. These themes may embody assumptions about why the cultural structure exists and how it is maintained. Themes may be cognitive where different symbols linked together within a cognitive map which becomes something that people believe, but most themes are tacit where the people are unaware or are unable to verbally express them. Themes may also be explicit and are stated by people. The themes presented here are all constructed from relationships within the culture scene.

In the last chapter, the first ten steps of the developmental research sequence were accomplished. Through interviewing an informant by means of different types of questions, the domains were discovered, cover terms and included terms defined, and taxonomic and componential analysis created. The eleventh step of the developmental research sequence provides the strategies for discovering cultural themes. This thesis seeks to accomplish

this task by making a cultural inventory of research material, examining componential analysis and cover terms, and identifying universal themes. Through the use of these three methods, it is the goal of this analysis to provide insight into the relevant cultural themes of a surgical nurse.

Cultural Inventory

As the head surgical nurse Eleanor is the participant within her culture scene who is expected to know everything about the operating room. Eleanor must know what equipment is needed and when. She must know what people are needed and when. She must know what to do and when. In other words, she runs the show.

In a usual scenario the doctors, or someone representing them, call to schedule a surgery. All Eleanor needs to be told is what type of surgery is going to be performed, by whom, and when. From this limited information she must pick the case, participate during the surgery, and supervise the cleaning of the room. This general provision, that Eleanor is the knowledge source for picking the operating room, is a cultural theme of the operating room. This is a theme because it provides a source for the structure of the operating room culture scene.

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Componential Analysis and Cover Terms

When the componential analysis (Appendix I) is examined, it becomes apparent that the surgeries are grouped generally by the average case length and hierarchy of money for equipment. Harvest followed by Heart, Vascular, Neuro, and then Orthopedic surgeries rank the highest within this culture scene. The greatest value is placed upon Harvest surgeries because it appears

that doctor, hospitals, and the general public give greater weight to organs being acquired for transplant than they do for Pulminary, OBGYN and Eye surgery, for example.

Also it appears that Heart, Vascular, Neuro, and Orthopedic surgeries are generally considered more important than others, perhaps because the heart, mind, lungs, arteries, and skeleton provide the most vital functions for human life. From this ranking found within the componential analysis, a theme emerges. Those surgeries that provide the greatest service towards the maintaining of human life are the most important. This seems obvious to most people, but here is a concrete example of it in cultural analysis.

Many ethnographic analyses provide cultural themes that may or may not be apparent to others outside of the cultural scene. The culture scene chosen for analysis here, the operating room, is a closed cultural system where the general public is only involved as patients. It is the assumption of most patients that the important surgeries are the ones that solve problems with human anatomy that if left alone would result in death. This thesis presents this general knowledge statement through an act of ethnographic analysis.

Universal Themes

The cultural scene of the operating room is extremely complex and structured. The structure allows the participants to act quickly and according to specific items. Through the assemblage of different types of

surgeries by the specific equipment and participants, the surgical nurse, who is in charge of the room, must act accordingly or the result may be as extreme as the death of a patient.

When I asked Eleanor what she called patients, she said she called them by their names because it makes them feel safer and it makes them feel that they are in the presence of those who care. But when she referred to patients without disclosing a name she referred to them by the type of surgery they were having. For example, before she knows the name of an individual who is coming for an appendectomy, she would say, "we have an appendectomy." Eleanor believes that it is degrading to come into the hospital, be stripped of all personal possessions, and have to wear a hospital garment. Therefore Eleanor believes that further dehumanizing a person by calling them by their ailment is unnecessary. Once she meets "the appendectomy", she switches to the use of the person's name.

These thoughts and actions are summarized by Eleanor in her belief that she is in a service to heal humanity. This belief constitutes a theme that integrates her actions in the surgical room as well as her personal life.

Throughout my interviews with Eleanor, the serious nature of the operating room culture scene came through in the way she acted, spoke about, and described her environment. When asked about joking in the operating room, Eleanor stated that the only joking that is done either before, during, or after surgery is by the doctors. The jokes serve to break the

monotony and stress. The high stress of human life in the balance, family and friends relying on you, all can wear nerves thin. This aspect of the operating room, that only the doctors joke, is a theme of power. Structures of power prevent or allow certain behavior. During a surgery, the doctors are at the highest level of the power structure, followed in order by nurses, techs and patients. A structuring theme that doctors have the power to joke and others do not is a universal theme of power that controls behavior in the operating room culture scene.

Four themes of the operating room have been discovered from this analysis, three of which are ordering themes and one is a power theme. The first theme of structure is that the head nurse is the knowledge source for picking the operating room. The second structuring theme is that those surgeries that provide the greatest service towards the maintaining of human life are the most important. The third structuring theme is that performing as a nurse in the operating room provides a service to humankind. The final theme discovered is that doctors have the power to joke and others do not.

Through the use of the developmental research sequence componential, taxonomic, and theme analyses have been completed. In the next chapter the findings of this ethnography and final thoughts on the theory and methods used by this thesis are discussed.

CHAPTER VIII

CONCLUSION

This thesis was an attempt to describe the culture scene of the operating room from the perspective of a surgical nurse. Through the use of the basic tenets of ethnoscience and the use of the developmental research sequence an ethnography was researched, analyzed and explained. My informant was introduced and identified. The physical setting of the operating room was explained and illustrated. The kinds of surgeries/services/case were defined and compared. The personnel were presented and compared. The surgical timeline was described in detail. The cultural domain of picking a case was identified and described. The cultural themes were identified and discussed.

All equipment and personnel of the operating room ultimately relates to the domain of surgery types. Every time Eleanor spoke of an operation that she had worked on the night before she always related it to one of the types. The culture scene of the operating room from the perspective of a surgical nurse is very structured. It must be structured because peoples' lives are on the line and things can go wrong without a moment's notice, so the surgical team must be prepared for anything. Eleanor does not consider

her position as a lead/head nurse of the operating room as just a job, but sees it as a service to humankind.

When Eleanor was presented with the results of this analysis she was astonished. She began by making minor corrections in the spelling and use of particular equipment and was satisfied that the descriptions were correct. She remarked that she had never thought about her role in the operating room in the way it was presented in this thesis. When we parted, she had a reflective stare.

This thesis has demonstrated the usefulness of thick description coupled with a systematic approach of ethnographic interviews. Thick description provides the means to interpret cultural data and describe the interpretation within cultural context. The developmental research sequence provides the methods for compilation of ethnographic data and for analysis of the data. When these two methods are used together, a method is developed that is both methodical and interpretive, which allows the examination of complex structures of meaning.

The impact of this thesis in the theoretical and methodological realm of anthropological thought is only represented by the usefulness that it may provide for further research. Clifford Geertz has suggested that each study adopt methods and theoretical bases from a similar study. In this way the methods and theories may be refined or if the theoretical ideas cease working, they cease being used. The ideas, which continually provide insight in study after study, become increasingly more powerful tools and finally a

vehicle for validation. It is the goal of this analysis to become one in a long line of tools for this purpose.

APPENDICES

APPENDIX I

COMPONENTIAL ANALYSIS

Type of Surgery	Average Case Length	Surgeon Position	Hierarchy of money for equipment	Surgical Glove Preference	Use X-ray Tech in Operating Room	Use Lap Tray	Use Basic Tray	Use Deep Tray	Use GI Tray	Use Chest Tray	Use Large Vascular Tray	Other Specialized Trays
Heart	1.2	2.1	3.1	4.1	N	N	N	N	N	N	N	5.1
Vascular	1.2	2.2	3.2	4.2	Y	Y	Y	Y	N	Y	Y	5.2
Neuro	1.2	2.2	3.4	4.7	Y	N	N	N	N	N	N	5.3
Orthopedic	1.2	2.2	3.3	4.3	Y	N	N	Y	N	N	N	5.4
Pulminary	1.3	2.1	3.5	4.2	N	Y	Y	N	N	Y	Y	5.5
General	1.3	2.1	3.5	4.7	Y	Y	Y	Y	Y	N	Y	5.6
OBGYN	1.3	2.2	3.5	4.4	N	Y	Y	Y	Y	N	N	5.7
Eye	1.3	2.2	3.5	4.5	N	N	N	N	N	N	N	5.8
Dental	1.3	2.2	3.5	4.4	N	N	N	N	N	N	N	5.9
Plastic	1.3	2.2	3.5	4.6	N	Y	Y	N	N	N	N	5.1
GU	1.3	2.2	3.5	4.4	Y	Y	Y	Y	N	N	Y	5.11
ENT	1.3	2.2	3.5	4.4	N	N	N	N	N	N	N	5.12
Harvest	1.1	2.1	3.1	4.7	N	Y	N	Y	N	Y	Y	5.13

For explanation of numerical code, see key on page 67.

Type of Surgery	Microscope	Scope	Omni Retractor	Bookwalter Retractor	Back Frame	Horse-Shoe Headrest	Ironing Board	Wilson Frame	Other Table Attachments	Nitro Drills	Head Lights	Bean Bag	Other
Heart	N	N	N	N	N	N	N	N	6.1	N	Y	N	7.1
Vascular	Y	N	Y	Y	N	N	Y	N	6.1	N	N	N	7.2
Neuro	Y	Y	N	N	Y	Y	Y	Y	6.1	Y	Y	N	7.3
Orthopedic	Y	Y	Y	N	Y	Y	Y	Y	6.2	Y	Y	Y	7.4
Pulminary	N	Y	N	N	N	N	N	N	6.1	N	N	Y	7.5
General	N	Y	Y	Y	N	N	N	N	6.1	N	N	Y	7.6
OBGYN	N	Y	Y	Y	N	N	N	N	6.1	N	N	N	7.7
Eye	Y	N	N	N	N	N	N	N	6.3	N	Y	N	7.8
Dental	N	Y	N	N	N	Y	N	N	6.1	Y	Y	N	7.9
Plastic	Y	N	N	N	N	N	Y	N	6.1	N	N	N	7.10
GU	N	Y	N	N	N	N	N	N	6.1	N	N	Y	7.11
ENT	Y	Y	N	N	N	Y	N	N	6.1	Y	Y	N	7.11
Harvest	N	N	Y	Y	N	N	N	N	6.1	N	N	N	7.11

For explanation of numerical code, see key on page 67.

Componential Analysis Numerical Code Key

1.1 Surgery takes about 8 hours to complete.
1.2 Surgery takes over 4 hours to complete.
1.3 Surgery takes from over 4 hours to less than 2.5 hours to complete.

2.1 Surgeons primarily stand during the operation.
2.2 Surgeons either stand or sit during the operation.

3.1 This type of surgery requires the most expensive equipment.
3.2 This type of surgery requires the second most expensive equipment.
3.3 This type of surgery requires the third most expensive equipment.
3.4 This type of surgery requires the fourth most expensive equipment.
3.5 This type of surgery requires the least expensive equipment.

4.1 The surgeons performing this type of surgery prefer Biogel surgical gloves.
4.2 The surgeons performing this type of surgery prefer either biogel or regular surgical gloves.
4.3 The surgeons performing this type of surgery prefer orthopedic surgical gloves.
4.4 The surgeons performing this type of surgery prefer either brown milled or regular surgical gloves.
4.5 The surgeons performing this type of surgery prefer either micro-optic or regular surgical gloves.
4.6 The surgeons performing this type of surgery prefer either brown milled, regular, or orthopedic surgical gloves.
4.7 The surgeons performing this type of surgery prefer any type of surgical gloves.

5.1 This type of surgery also uses the following trays: CABG "cabbages" - Coranary Artery Bypass Graft Tray; Aortic Valve Tray; and General Heart Tray.
5.2 This type of surgery also uses the following trays: Small and Large Peripheral Vascular Trays and Vascular Accessory Tray.
5.3 This type of surgery also uses the following trays: Crani Tray (Basic Neuro), Back Tray; and Cervical-Anterior Tray.
5.4 This type of surgery also uses the following trays: Large and Small Bone Trays; Knee, Shoulder, Hand, or Hip Tray; AO Sets (Mini, Basic, Large and Small); Bone Forceps Tray, and 19 other trays.
5.5 This type of surgery does not use any other type of trays.
5.6 This type of surgery also uses the following trays: Thyroid Tray and Mastectomy Tray.

5.7 This type of surgery also uses the following trays: Vag Tray; GYN Tray; Section Tray; and D and C Tray.
5.8 This type of surgery also uses the following trays: Basic Eye Tray; Scleral Buckle Tray; General Eye Tray; and Cataract Tray.
5.9 This type of surgery also uses the following trays: Maxio Cranial Tray; and most bring their own instruments.
5.10 This type of surgery also uses the following trays: Fine Plastic Tray, Micro Fine Plastic Tray, and Micro Tendon Tray.
5.11 This type of surgery also uses the following tray: Kidney Tray.
5.12 This type of surgery also uses the following trays: Major Ear Tray; Septo Plasty Tray; Rhino Plasty Tray; ENT Reconstruction Tray; T and A Tray; and Trach Tray.
5.13 This type of surgery also uses the following trays: Basic Heart Tray; Kidney Tray; Peripheral Vascular Tray; and the rest are brought by the surgeons.

6.1 This type of surgery does not use any other types of table attachments.
6.2 This type of surgery uses the following types of table attachments: Peg Board, Knee Attachment, Fingertraps, Andrewsís frame, T-bar, cassette holder, and 3 types of knee holders.
6.3 This type of surgery also uses the Wrist Rest Attachment.

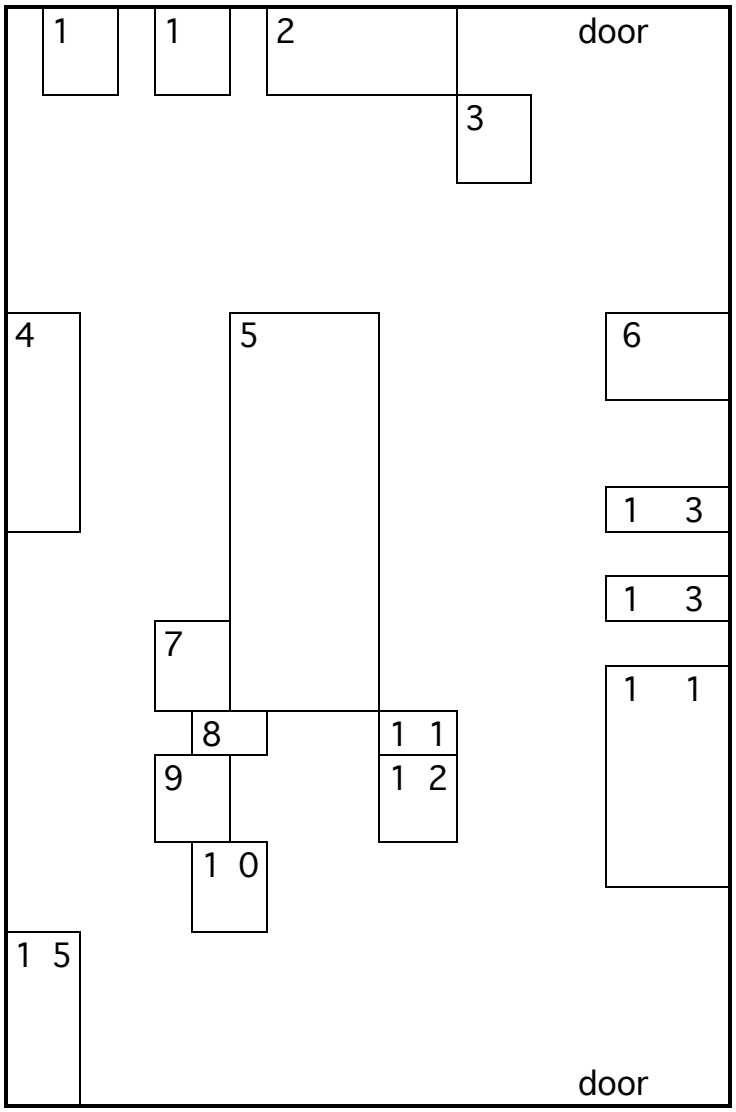
7.1 This type of surgery uses the following miscellaneous room supplies: Heart-Lung machine, Diffibulator, and Slush Basin.
7.2 This type of surgery uses the following miscellaneous room supplies: Vascular cart, 4 suctions (2 bottom, 1 top, and 1 cell saver), 2 boviís, and X-ray with dye.
7.3 This type of surgery uses the following miscellaneous room supplies: Mayfield table, Headpoints, and Malis.
7.4 This type of surgery uses the following miscellaneous room supplies: X-ray, air tourquiet, Laminar flow, solution cart, cutting power machine, banks, and handcart with doctors loops.
7.5 This type of surgery uses the following miscellaneous room supplies: 3" tape.
7.6 This type of surgery uses the following miscellaneous room supplies: Stapler cart, rolled towel, and donut.
7.7 This type of surgery uses the following miscellaneous room supplies: Stirrups.
7.8 This type of surgery uses the following miscellaneous room supplies: Hand held lens, Weckfield, and Cryo machine.
7.9 This type of surgery uses the following miscellaneous room supplies: Stryker drills and micro drills.

7.10 This type of surgery uses the following miscellaneous room supplies: Plastic suction machine.

7.11 This type of surgery does not use any other types of miscellaneous room supplies.

APPENDIX II

OPERATING ROOM SKETCH



1) MAYO Stand
2) Back Table
3) Suction
4) Table
5) Operating Table
6) Hamper
7) Suction
8) IV Pull
9) Bovi
10) Anesthesia Cart
11) IV Pull
12) Anesthesia Mach.

13) Stools

14) Desk

15) Wire Cabinet

APPENDIX III

INTERVIEW NOTES

Me: ...First, describe the surgery room, how is it set up and what is in it.

Informant: Okay, um.. The rooms are will lit, they're either tiled or painted. um.. We have um... tile on the floor because the floors are mopped. Also the walls are mopped a lot too because of infection. Some diseases are transmitted air born so we have to mop down the walls and leave them for 24 or 48 hours. The operating room table is in the middle of the room. We have a cart called an anesthesia cart which has medications on it for the anesthesiologist. The anesthesiologist has his own machine which is a gas machine, which is connected to walled tables for um... oxygen and um... humm... oxygen... I'm trying to think, um... oxygen, suction, and air. In each room we have what's called a bovi and this is a um..., another name for would be a cooker, it's what we use to stop bleeding. Okay, the valley lab machine. There are two tables long tables in each room. One would be used as the back table where we would set up a pack when we open up to do surgery and then a smaller table would be for other pieces of equipment we use in the

room. The two tables that are called Mayo stands and these are covered...

Me: What are they called?

Informant: Mayo M A Y O after the Mayo Clinic.

Me: Oh! Okay.

Informant: Okay, it's a stand that looks like, almost like a gooseneck lamp would be, except that top would be flat and then a metal piece going down and then a platform down below. There would be a knob there so we could lower and raise the tip piece. Now, that is were all the instrumentation goes, we have two of those in each room and we have what's called ring stands. Which is a stand which is circular like a ring and a basin set in that. We have two of those in each room.

Me: Oh! Okay.

Informant: Okay, it's a stand that looks like, almost like a gooseneck lamp would be, except that top would be flat and then a metal piece going down and then a platform down below. There would be a knob there so we could lower and raise the tip piece. Now, that is were all the instrumentation goes, we have two of those in each room and we have what's called ring stands. Which is a stand which is circular like a ring and a basin set in that. We have two of those in each room.

Me: What do they use those for?

Informant: Well, what we do is we... when we're opening up our instruments we put those on top of there and when you open up a sterile pack you set a container on a ring stand. You would open up either side with your left hand and right hand and they drop down. Then the other piece of drape, the part that's wrapping the tray would go away from you and then the other piece that would be closest to you would drop down in front of you and then you take two steps back to keep that part sterile. The tray would be on there and then you would push from underneath to keep the tray sterile and who ever the nurse is that's scrubbed at the back table would take that tray off and put it on the back table. We have suction machines in each room. We have one at the head and one at the foot. At least two in each room and the purpose of that is in case one malfunctions. When a patient is going to

sleep or waking up we um... we would always have the suction machine available in case the patient has mucus in the patients throat and then all during surgery we use them to um.. to suction out blood, fortunately, or for irrigating with saline. We would suck out the irrigation solution or if we're using the cooker. Some of the doctors don't like the smell of it and it is used as a plume evacuator. the suction catheter would be held right by were the doctor was cooking and when the tissue is burned to stop bleeding the smoke that would come is would go right out the suction tube. We sit on low stools, they're about 3 feet from the ground. They are circular so they can go higher or lower. In the corner of each operating room is a wire cabinet which is used... um supplies that we use during the cases so the nurses don't have to run out of the room for each case. We have two doors in each operating room...

Me: Let's sketch this so it will be a little bit easier to um... so the operating table would be about here?

Informant: Right, correct.

Me: Okay...

Informant: Okay, um... let's do room two. The wire cabinet would go right there. Um... right here would be the anesthesia cart with the medications on it and right here would be the anesthesia machine

which has all of the hookups. The desk is right here. The stools would go right about here...

Me: How many?

Informant: You can put two there for right now. This is a back table here. Okay, the Mayo stands are here and here. Okay, a smaller table goes here. That would be a smaller back table like this. Okay, now, one suction is here. One suction is here and then the bovi is right there or valley lab or the cooker. Okay, if you want to make a circle here this would be a IV pull here and this would be and IV pull right in here. That would have the same use as a clothes line because when we put the drapes over the patient we hook them here and here and then the rest of the drapes go down to the foot of the patient. We have a door here that goes to a sub sterile area. Once you walk into the room (and there is a door right here to go in this room) you would always wear a mask when you would go in that room. And then going into this um... area here that area is a sterile area so that you would always wear a mask, back here. And the autoclave would be out here. We do have... there would be a hamper here. We have... we recycle the blue wrappers that our trays come in they are re... they are used again by there manufacturer. We recycle um... okay we have a linen hamper for the linen itself. We have a brown hamper that we put paper products in and then we have what's called a contaminated bag. And these are

bags that when we are done doing surgery, everything that is used during the surgery are placed in these. These are treated um... by the hospital to render everything in the bag ineffective as far as germicides or pathogens are concerned. That would be an example of each of the rooms. The Neuro room would have a little more and so would the brain surgery. The heart room would have separate... a few more things in it, but ...

Me: How many rooms are there?

Informant: We have 12 operating room suites.

Me: That's a lot!

Informant: Yes.

Me: Okay, what I'll do is once I get that all set up I come back and say, there's a little bit more of this.

Informant: Yes, if you were going to do an appendectomy on a patient, take out someone's appendix, um... this is the basics.

Me: Just so I can get an idea of the timeline thing... describe your last surgery.

Informant: Okay, the last surgery was an appendix. Um... Um... seventeen year old girl who was 26 weeks pregnant. And she was brought into the hospital for fetal monitoring to make sure that the baby was okay and they brought her down and um... took out her appendix... and that's it.

Me: Well, what I'm looking for is um... maybe go into to setup of the room, maybe what you do...

Informant: Oh! Okay, the doctor would call and setup the operation. We would go back to the back hall which is off the sub sterile area back here were all the supplies are. Each case has.. in the case of an appendix there is a basic setup that we would pick for that case. And um.. then we would pull the doctors card and look to see if he liked anything specific for an appendix and then all of his suture is written down in the card. So, um... that's what... Okay and then they would call... schedule the patient, the patient is upstairs um... this would be an emergency type situation. I would call the anesthesiologist and tell him we have a patient due and he would come into the hospital because they're on a on call basis. And then we would go back to pick the case... okay for this case the case carts are metal carts about 4 feet off the ground 2 to 3 feet wide and they have three layers on them because some surgeries like orthopedic surgery could use as many as 20 different trays when they are trying to decide how to do a hip replacement or doing a revision of someone who has already had a hip done. Now for a typical, now this would just be a typical appendectomy you would have a lap tray, and when I say tray I mean it's a metal tray with instruments. A lap tray is a basic tray with... a basic tray for a larger abdominal type procedure, a smaller tray would

be basit and that's small tray which would only have equipment on it to do something like removing a wart or something of that nature something that would not be very very large that you would not be going into the abdomen for. So we would have the lap tray. We would have a pack that goes on the table. The pack that goes on the table would be a sterile pack. We set it in the middle of the back table which would be back here. We open it in the same fashion that I told you left to right and then back to front. That would be there. We would have a... we would have two packages of towels, which are sterile that are pored on the field. We would have sponges and laps that we use for the fields. We have a basin that which has two basins in it a suction tube in and a catheter. A graduated pitcher type and then something that looks like what you would baste a turkey at thanksgiving time, it's called a asepto seringe, and then little small trays that we use if someone, if one of our doctors wants to inject a medication around the area so when the patient wakes up they will not be in pain after surgery. Ah! or um... if you are doing another type of surgery you might even want to put medication on the field. You would also have different packages for the bounds of...all the bounds are of one size. The gloves would be according to the size of the doctor. And we have some gloves that are heavier that most people are using now, they are orthopedic gloves. But some people don't like the feel of that they want

a thinner glove but they want protection against possible um... a knife wound from the patient um... when we have a scalpel we have to be very very careful that, the doctor has to put it down very carefully. We have what's called a free zone now were we're a teaching the doctors to put the scalpels down were rather than hand them back to the nurses. Some nurses and doctors use two sets of gloves. So all of this would be thrown, we call it throw when we put things on the back table, is what we call throw, you would have your sutures, and your knife blades be separate. Your bovi which would be connected to this which is a disposable item it is a pencil connected to a wire which is hooked into the machine , that's done separately. We now have um... small little plastic containers which we put all our sharps in, so our needles, all of our knife blades go in those things. So it sounds very complicated, but we can pick it in like 5 minutes and have the whole thing um... opened in about five minutes...

Me: Well, you do it all the time...

Informant: Yeah, because we do it all the time but this is the um... the most simple procedure that we would do. And then once we're um... we get it all open I call to find out if the patients ready and um... they have a check list they have to go down through they have to make sure that the um... operant consent's signed if the patients able to sign it if it's an emergency case and the patient's not able to function two doctors

will sign it if it's a life threatening situation. So, the patient comes down on a gurney, on a stretcher, and I check the patients ID. The patient wears an arm band and has a red tag if... red armband if she has allergies, he or she has allergies, a blue one is they don't. I go through the check list again to make sure that the dentures are out that they don't have any loose teeth false eyeball um... this happened to me one time when we were trying to get a patients eye to react and I found out that the patient had a false eyeball. Because during a surgery if anything, god forbid, happens and the eye does not react then this is a big deal. So I always go through this I always recheck the um... contact lenses and I also recheck the um... allergies to make sure that they are what the patient says they are because once the patients asleep if you want to give the patient a antibiotic you have to know if the patient's allergic to it or any type of drug. So then we take the patient into the operating room. The patient is put to sleep by the anesthesiologist. the area for surgery, like if it's um... an appendectomy, would be the abdomen. I would shave that with a razor and then I would prop it with an iodine solution unless the patient has an allergy to that. If the patient has an allergy to that we would use something like visobec or hepocleg which is a red soapy solution so the area is as clean as possible to start with. That's done under sterile technique. Then, you know, the doctors have scrubbed their hands and

they scrub for about six minutes, they will come in, wipe their hands on one of the towels on the back table and the um... that's called the suture nurse um... that person is quote sterile because they have already scrubbed and they put on there gown and glove. So, they help the doctors don the gown and the glove and I tie them up in back. and then they drape the area off and put on the drapes and then we look up the suctions and the bovi's before they start and then they start the case...

Me: And what do you do when they're...

Informant: Okay, while I... while they're doing the surgery um... I'll get everything hooked up and then I'll get some warm solutions, I get two containers of warm saline because one they put the lap sponges in then, so they put those inside the patient to keep the tissue warm and then the other goes in that graduate type beaker because if they want to irrigate they have that. Then the second basin, there are two basins, I put regular distilled water and instruments go in there to get washed off. We don't put instruments in saline because they rust, um... it's great for the patient cause that's... that's what your insides are hemodynamicaly which is saline, but not for the water and um... So once I get that all done um... the average appendix for the average doctor takes about a half hour, 35 minutes, I have to sit down and start doing the paperwork, for which there is a mountain of paperwork in

any... any case. I have to call the recovery nurse to come in because she is the nurse who sill recover the patient after the patient has awakened from surgery um... Many times I end up doing my paperwork in the recovery room because if they need something, if um... the appendix has burst they always take cultures so I would have to um... it's aerobic, anaerobic, and grass stains, so I would have to get the culture tubes for them, for the nurse. If she need any more suture um... I would get that and we, we... as I said we use the term throw, I would just put it on the back table, but what you do is open the package and flip them on, if she ever needs anymore sponges or four by four's. If...

Me: Four by four's?

Informant: Four by four's are gauze, gauze that's four inches by four inches. It has a X-ray line going down so that if, inadvertently you heard of sponges being lift in patients?

Me: No...

Informant: Anyway it shows up the line shows up and the laps are um... they're about a foot in diameter, we use those to soak up blood. They also have a blue indicator tag on them, so sometimes they need more of those so I get them that. If anybody gets a hole in their glove I would give them another pair of gloves. um... And then when the surgery is finished then we sort of reverse what's done though um... close up the

patient and finish the surgery. Then, clean off the area and redress with four by four's and tape. Mean while I've turned off the bovi, the cooker and discontinued the suction and given the suction back to the anesthesiologist, because he needs it when the patient's waking up. And we'll remove al the drapes um... take the bovi pad off the patient um... That's one thing I forgot to mention... after the patient is put to sleep we put on a sticky pad on the patients thigh and that's about four inches by about three inches and that grounds the patient so that the current when they're using the cooker goes through the patient and back out into the machine... so this will prevent the patient from being burned. Many many years ago we had the patients lie on metal plates that had a lubricant on it and they were attached to the bovi and that's all the patients ever remembered was the bovi plate because it was very very cold...

Me: I could imagine.

Informant: So then when the patient wakes up then we take the patient into the recovery room um... a sort of a hammock like lifter. They have heavy straps, these are on each of the operating room tables, so the patient is just removed into there for an appie. This is for an average case and then the patient goes into the recovery room, finishes waking up, we take them in when they're able to lift their head up and able to swallow. So they are more or less um... all the anesthesia has worn off.

They aren't too alert, but they are able to breath and swallow and speak if you ask them questions they know were they are. They go into the recovery room for about one hour and then they go upstairs to their floor and then after the patient has left the room the nurse who's scrubbed will put all of the instrument into the um... water with a soapy solution and then discard in a special sharps, we call them sharps containers and they're very heavy plastic containers, um... For the heart room they're three feet tall and they sit on the floor. The rest of the rooms they're about a foot tall and about eight inches across and we put all of our um... all of the syringes and of the needles all of the knife blades all of the needles used in surgery, besides the seringe needles any small glass ware would go into that and um... and we change the suction between patients so the suction canister, which is plastic, is taken out as a self contained, we close the lid and it's a self contained system everything is wrapped up in the red plastic bags I told you about that say um... contaminated danger , we have them in both Spanish and English. And so the room is... everything that touched the patient is taken out of the room and everything left would be the pieces of equipment that I've mentioned before, um... We wash all of the instruments and then they are autoclaved and then I put them in a milk solution so they don't rust and then it's set up again as a tray to be used again and all of the linen is either discarded or put

aside to be recycled. So that's an average case. But that's an average...

Me: Okay, we've already gone through those two questions, that's good.

Informant: Okay.

Me: Um... Okay, just for the heck of it describe an interesting experience besides that eye...

Informant: Besides the eye... humm... Lot's of them are interesting um...

Me: Something that you would joke about to another nurse or doctor or something that they would find funny too...

Informant: um...

Me: Interesting or something...

Informant: I'd have to think about that because most things are not funny, you know?

Me: Yeah...

Informant: Because of the nature of the beast um... I can mention one that was errie... um... Several years ago on Halloween, we had a young man that came in with a stab wound to the abdomen and he was from Iowa. He got out of his car to tell them why he couldn't pick them up to give them a ride as a hitchhiker and the man stabbed him um... We're not a type A trauma hospital the wife drove him to the emergency room and of course we got him right away because he had a lacerated liver. But the thing that was errie was because the man had painted his face.

One side was silver and one side was white and he was a harlequin, was a clown and he had on a serven white clown suit and when we got him to the operating room they hadn't done anything about his face and one side of his face was silver and one one side of his face was still white. So they had removed his clown costume and he was in hospital garb and uh... being the circulating nurse we stand next to the anesthesiologist when they're putting the patient to sleep and I kept looking at this man who was a Caucasian, but had half of a white face and half of this blue silver it was... it was... um... I kept trying to wipe it off and it didn't really come off, it was really painted on. I thought we're never going to know if he's cyanotic or if he's getting enough blood or whatever because of his face. But um... the um... it it's such a serious thing um...

Me: so there's no real joking...

Informant: There is really no um... sometimes during the cases the doctors, to relieve the tension, tell a joke or something like that but um... because it's such a serious place, it's um....

Me: huh.

Informant: Yeah, and many times it is life threatening um... A family is very upset that someone is having surgery as an emergency so it's um... Once in a while I think kinda cute things happen on the floor that the patient and the nurse can joke about, but not really in the operating

room. It's a... it's a very.... it's a clearly high stress high stress area um... and you have to learn to leave it there when you leave, otherwise you get burned out really fast... like last night the place was thrashed because they were so busy. We spent all night long trying to get things back in order for people when they came in this morning at 6:30...

Me: Wow, okay, how do you refer to the surgery room?

Informant: Um... we just call it the operating room. In England they call it the theater, in the operating room I'm a nurse, in England I'm a theater sister.

Me: Huh!

Informant: I like it much better.

Me: Yes, sounds more... Okay, first I'll start with basic surgery, what... what people are in there? Just... gimmie their title and how many...

Informant: Okay, the um... there would be one surgeon he would have an assistant, now the assistant would either be another doctor or a nurse which is called an RNFA that's an RN first assistant that's a new um... that's a new position which has just become available in the last 8 to 5 years because of the insurance companies not wanting to pay a doctor an assistance fee. So this has been a new system. You have a scrub nurse, a circulating nurse, and an anesthesiologist.

Me: And you are?

Informant: I would normally, if I'm in charge, I would be the circulating nurse.

Me: But you switch?

Informant: If there is another RN on I like to scrub. I love to scrub. I would prefer scrubbing. But unfortunately I'm usually in charge so I have a tech on and tech's can not be in charge. That's either a hospital ruling or a state ruling.

Me: Okay, now what other people would be in there in different situations?

Informant: Okay, if it was a broken bone, we would have the X-ray tech, an X-ray tech would come in and take pictures. If there is a question about the patients heart before surgery, we would have the EKG tech come in and do a twelve route EKG to see what the patients heart's doing. If the patient is having difficulty in breathing, then sometimes we would give them a breathing um... a breathing um... test or a function before hand and sort of clear up their lungs and the respiratory tech would come in to do that. If they are concerned about loss of blood, the um... tech from the laboratory would come and draw blood to either check on something and the white count and the red count or just have that available in case the patient needs blood. The recovery room nurse is in the recovery room. That's it that would be the ancillary, not ancillary but the rest of the people that might be around.

Me: Is there more than one surgeon sometimes?

Informant: Depending on the type of surgery were the more complicated surgeries we would have two major surgeons um.. like on a very large neuro case where we're working on the spinal column if they go in anteriorly which is through the side of the rib cage we would have um... that would be a major surgeon and also the neuro surgeon would be the major surgeon of course there would be another assistant who would be another surgeon. Usually it would be just one surgeon unless it was a very complicated surgery.

Me: Is there ever more than two?

Informant: The only time that would be is what we do a harvest and they, major surgeons, would come in tandem. A harvest is done on somebody who has died and we're harvesting the organs for transplant. So that um... the surgeon who would come in for the heart would have his own assistant, the surgeon coming for the kidney would have his own assistant usually the one taking the heart would be the same ones for the lungs, it they are going to do the lungs. The pancreas is usually done by the one who got the kidney. But that would be the one time where there would be one surgeon with his assistant. And the one doing the kidney's is usually from a teaching facility and they'll have several assistants and a resident.

Me: I just always assumed that there were more nurses running around...

Informant: I just thought of something else... I the patient's having difficulty we have special lines that we put in the patient and we do have someone who helps us with that. There are two techs that we have for that. And in complicated surgeries we have what's called a stealth saver, we do that on aneurysms or on orthopedic cases when they are trying to salvage the patients blood they'll filter it down spin it down give it back to them. no usually for um... oh! if someone is learning because we do have students from nearby junior colleges someone will scrub with a learner to be there to help them and they stand on the opposite side of the table. The opposite side of the Mayo stand. And would help that person if they needed help. It would just be for people that are learning and then once they become proficient then they don't need any help. When I trained years ago we had what we called a suture nurse and an instrument nurse there were two nurses for each patient and that was because we had to thread every one or our sutures into the needle and that took time Now all of the needles are, most of them are swedged on to the suture material so all you do is rip open a package and you take a needle holder and you clamp it on the needle and pull it out of the package and hand it to the doctor. And you can do that in... you know very fast... but but for an average case there would be just two nurses a scrub nurse and a circulary nurse.

Me: Okay, now the Nurse RNFA what type of education does she have?

Informant: Okay, this program is taught at major teaching hospitals now. I consists of going to class for four weekends from 8 to 5 there held on Saturdays and Sundays and they're held in the spring and fall and this is for the working person What you have is an incredible amount of information to read in fact there are five textbooks, I'm going to take it. It is fairly expensive to take it at the university, you get 50 odd credit from... it is on the graduate level, um... you take an exam, you have to pass it. You have to have what is called ACLS which is advanced life support, you have to be able to incubate a patient which means you have to be able to put the incubation tubes down the patient, which is what the anesthesiologist does. We also have to be able to start an IV. We're not called upon to do it you just have to have the capacity...

Me: So if something happens and you have to do it?

Informant: Yeah, you can do it. Then what you do is you have to have 120 hours, supervised hours, with a proctor at a hospital. and then you receive you certificate. They have just come up with a board now so that you can be a certified RNFA. Right now there is still working with the salaries as far as giving the nurses more money at the institution where I work right now, the RNFA's do not receive extra money. They will assist in a case, they will do the same thing as an assistant would do, as far as retracting holding back tissues, tying the

knots, cutting them, suturing. This is going to be part of the new wave in nursing.

Me: How do you refer to the Doctors?

Informant: I call them Dr. Jones, Dr. Smith...

Me: Yes, to their face, but do you call them surgeons?

Informant: Yes uh huh uh huh!

Me: You said there were different types of surgeons?

Informant: They would all have specialties. General surgery, and that would usually have something to do with the abdomen, Orthopedic men, um... bone specialists, Plastic, surgeons would either work with the face or with... many of them have a specialty as far as micro vascular so that they can work with the hands, with muscles and tendons, Neuro surgeons, GU is genital urinary and that's for kidneys or bladder that type of... that particular system, the heart surgeons, ENT which is ear nose and throat and that would vary from doing a trach on a patient to taking our tonsils from someone, Dental service which they do things like TMJ which have to do with this joint right here above your jaw, eye surgery which is incredible field, and then OBGYN Obstetrics and gynecology the OB part would be the baby part and the gynecology would be a female like hysterectomy which would deal with the uterus, now if you had a hernia you would be taken care of by a general surgeon, Pulmonary men and their the lung surgeons, the vascular

surgeons are different than heart they would do things like varicose veins in the leg they put shunts in the patients arm right here for people on dialysis for the kidney machine vascular men do the aneurysms AAA that's the one word we don't like to hear in the middle of the night. An aneurysm is a weakening and ballooning of a blood vessel.

Me: Okay, Nurses, Do you have a scheme for them?

Informant: Well they would be assigned to a service, they would be the same thing. Each of those services has a head nurse. And an assistant head nurse. GU Service Orthopedic Service etc.

Me: And your in the?

Informant: I'm in the Neuro. Neuro is my specialty. Each service has a head nurse and an assistant head nurse and the people that like to work on that service do get assigned to those services And certain doctors like to work with certain nurses and some nurses like to work with certain doctors...

(Sorting Questions)

People Involved in a regular surgery -- Major Surgeon, Assistant (General Surgeon or RNFA), Scrub Nurse, Circulation Nurse, Anethesiologist.

People Involved in a major surgery -- Two Major Surgeons, Assistant (General Surgeon or RNFA), Scrub Nurse, Circulation Nurse, Anethesiologist.

People Involved in a Harvest -- Major Surgeons in Tandum, Assistant (General Surgeon or RNFA), Scrub Nurse, Circulation Nurse, Anethesiologist.

Other People that may be in the room during surgery

X-ray tech -- broken bones

EKG tech -- heart problems - not in room during surgery, only before or after

Respitory tech -- breathing problems - not in room during surgery, only before or after

laboratory tech - severe blood loss, blood tests - not in room during surgery, only before or after

recovery nurse -- outside of operating room

learner -- works in tandum with scrub nurse

instrument nurse

pulminary tech -- salvage blood, lines in patient

BIBLIOGRAPHY

Atran, Scott
1993 Whither "Ethnoscience"? In *Cognitive Aspects of Religious Symbolism*. Pascal Boyer, ed. Cambridge: Cambridge University Press. Pp. 48-70.
Berreman, Gerald D.
1966 Anemic and Emetic Analysis in Social Anthropology. American Anthropologist 68:346-54.
Brouwer, Jan
1998 On Indigenous Knowledge and Development. Current Anthropology 39(3):351.
Bullough, Vern L. and Bonnie Bullough
1984 History, Trends, and Politics of Nursing. Norwalk, Connecticut: Appleton-Century-Crofts.
Burling, Robbins
1964 Cognition and Componential Analysis: God's Truth or Hocus-Pocus? American Anthropologist 66:20-28.
Carlson, Katherine
1977 Reciprocity in the Marketplace: Tipping in an Urban Nightclub. In *Conformity and Conflict: Readings in Cultural Anthropology, 3rd Edition*. James P. Spradley and David W. McCurdy, eds. Boston: Little,
Brown. Pp. 337-47.
Chene, Mary Des
1994 Symbolic Anthropology. In *Encyclopedia of Cultural Anthropology, Volume 4*. David Levinson and Melvin Ember eds. New York: Henry Holt and Company. Pp. 1274-9.
Cohen, A. K.
1948 On the Place of 'Themes' and Kindred Concepts in Social Theory. American Anthropologist 50:436-43.
Conklin, Harold
1955 Hanunoo Color Categories. Southwestern Journal of Anthropology 11:339-44.
1969 Lexicographical Treatment of Folk Taxonomies. In *Cognitive Anthropology*. Stephen A. Tyler, ed. New York: Holt, Rinehart and Winston. Pp. 41-59.
Dock, Lavinia L. and Isabel Maitland Stewart
1931 A Short History of Nursing: From the Earliest Times to the Present Day. New York: G. P. Putnam's Sons.
Dolan, Josephine A. et al.
1983 Nursing in Society: A Historical Perspective, 15th Edition. Philadelphia: W. B. Saunders Company.
Douglas, Mary
1966 Purity and Danger: An Analysis of Concepts of Pollution and Taboo.

New York: Prager.
1970 Natural Symbols: Explorations in Cosmology. New York: Panteon Books.

1990a Pangolin Revisitied: A New Approach to Animal Symbolism. In *Signifying Animals: Human Meaning in the Natural World*. London: Unwin Hyman. Pp. 25-36.

1990b Risk as a Forensic Resource. Daedalus 119(4):1-17.

1991 Witchcraft and Leprosy: Two Strategies of Exclusion. Man 26(4):723-37.

Douglas, Mary and Marcel Calvez

1990 The Self as Risk Taker: A Cultural Theory of Contagion in Relation to AIDS. Sociological Review 38(3):445-65.

Douglas, Mary and Aaron Wildavsky

1982 Risk and Culture: An Essay on the Selection of Technical and Environmental Dangers. Berkeley: University of California Press.

Frake, Charles

1964a A Structural Description of Subanun Religious Behavior. In *Explorations in Cultural Anthropology*. Ward H. Goodenough, ed. New York: McGraw-Hill. Pp. 111-29.

1964b How to Ask for a Drink in Subanun. American Anthropologist 66(2):127-32.

1964c Notes on Queries in Ethnography. American Anthropologist 66(3):6-56.

1969 The Ethnographic Study of Cognitive Systems. In *Cognitive Anthropology*. Stephen A. Tyler, ed. New York: Holt, Rinehart and Winston. Pp. 28-41.

Geertz, Clifford

1966 Person, Time and Conduct. New Haven: Yale University Press.

1973 The Interpretation of Cultures. New York: Basic Books.

1983 Local Knowledge: Further Essays in Interpretive Anthropology. New York: Basic Books.

Goodenough, Ward

1956 Componential Analysis and the Study of Meaning. Language 32:195-216.

Greenburg, Joseph H.

1948 Linquistics and Ethnology. Southwestern Journal of Anthropology 4:140-7.

Handler, Richard ed.

1995 Scheider on Schneider: The Conversion of the Jews and other Anthropological Stories. Durham, North Carolina: Duke University Press.

Harris, Marvin

1979 Cultural Materialism: The Struggle for a Science of Culture. New York:

Random House.
Hymes, Dell
1964 Directions in (Ethno-) Linguistic Theory. American Anthropologist 66(3):6-56.
1974 Foundations in Sociolinguistics: An Ethnographic Approach. Philadelphia: University of Philadelphia Press.

Keesing, Roger
1974 Theories of Culture. Annual Review of Anthropology 3:73-98.
1993 'Earth' and 'Path' as Complex Categories: Semantics and Symbolism in Kwaio Culture. In *Cognitive Aspects of Religious Symbolism*.
Pascal
Boyer, ed. Cambridge: Cambridge University Press. Pp. 93-110.
Leonardo, Richard A.
1943 History of Surgery. New York: Froben Press.
Naroll, Raoul and Ronald Cohen, eds.
1970 A Handbook of Method in Cultural Anthropology. Garden City: Natural History Press.
Opler, Morris E.
1945 Themes as Dynamic Forces in Culture. American Journal of
Sociology
51:198-206.
Pelto, Pertti J.
1970 Anthropological Research: The Structure of Inquiry. New York: Harper & Row.
Perchonock, Norma and Oswald Werner
1968 Navajo Systems of Classification: The Domains of Food. Ethnology 8:229-42.
Pike, Kenneth
1967 Language in Relation to a Unified Theory of the Structures of
Human
Behavior, 2nd Edition. Mouten: The Hague.
Rutkow, Ira M.
1998 American Surgery: An Illustrated History. Philadelphia: Lippincott-Raven Publishers.
Schneider, David M.
1977 Kinship, Nationality, and Religion in American Culture: Toward a Definition of Culture. In *Symbolic Anthropology: A Reader in the*
Study
of Symbols and Meanings. Janet Doglin, David Kemnitzer and David Schneider eds. New York: Columbia University Press. Pp. 63-88.
Spradley, James P.
1968a A Cognitive Analysis of Tramp Behavior. Proceedings of the 8th International Congress of Anthropological and Ethnological Sciences. Tokyo: Japan Science Council.
1968b The Skid Road Alcholic's Perception of Law Enforcement in Seattle. Mimeographed Research Report, Department of Psychiatry, University of Washington, Seattle, Washington.
1969 Guests Never Leave Hungry: The Autobiography of James Sewid, a Kwakiutl Indian. New Haven: Yale University Press.

1970a You Owe Yourself a Drunk: An Ethnography of Urban Nomads. Boston: Little, Brown.

1970b Ethnoscience and the Study of Urban Images. Paper presented at the Conference on Anthropological Research in Cities, Milwaukee, Wisconsin, June 8-13, 1970.

1971a Beating a Drunk Charge. In *Conformity and Conflict: Readings in Cultural Anthropology*. James P. Spradley and David W. McCurdy, eds. Boston: Little, Brown. Pp. 351-8.

1971b Cultural Deprivation or Cultural Innundation. Western Canadian Journal of Anthropology 2:65-82

1972a Culture and Cognition: Rules, Maps and Plans, ed. San Francisco: Chandler.

1972b Foundations of Cultural Knowledge. In *Culture and Cognition: Rules, Maps and Plans*. James P. Spradley, ed. San Francisco: Chandler. Pp. 3-38.

1972c Adaptive Strategies of Urban Nomads: The Ethnoscience of Tramp Culture. In *The Anthropology of Urban Environments*. Thomas Weaver and Douglas White, eds. The Society for Applied Anthropology Monograph Series, Monograph Number 11. Pp. 21-38.

1972d Down and Out on Skid Row. In *Life Styles: Diversity in American Society*. Saul Feldman and Gerald W. Thielbar, eds. Boston: Little, Brown. Pp. 340-50.

1972e An Ethnographic Approach to Study of Organizations: The City Jail. In *Complex Organizations and Their Environments*. Merlin Brinkerhoff and Philip Kunz, eds. Dubuque: W. C. Brown. Pp. 94-105.

1973 The Ethnogaphy of Crime in American Society. In *Cultural Illness and Health*. Laura Nader and Thomas Maretzki, eds. Anthropological Studies, No. 9 Washington D.C.: American Anthropological Association.

1975 Public Health Services and the Culture of Skid Row Bums. Proceedings of Conference on Public Inebriates. National Institute on Alcohol and Alcohol Abuse. Washington D.C.: U.S. Government Printing Office. 1-19.

1976a The Revitalization of American Culture: An Anthropological Perspective. In *Qualities of Life: Critical Choices for Americans, Volume III*. Lexington, Mass.: Heath. Pp. 99-122.

1976b Trouble in the Tank. In *Ethics and Anthropology: Dilemmas in*

Fieldwork. Michael A. Rynkiewich and James P. Spradley, eds. New York: Wiley. Pp. 17-31.

1979a Participant Observations. New York: Holt, Rinehart and Winston.

1979b The Ethnographic Interview. New York: Holt, Rinehart and Winston.

Spradley, James P. and Brenda Mann

1975 The Cocktail Waitress: Woman's Work in a Man's World. New York: Wiley.

Spradley, James P. and David W. McCurdy

1971 Conformity and Conflict: Readings in Cultural Anthropology. Boston: Little, Brown. (2nd ed. 1974: 3rd ed. 1977)

1972 The Cultural Experience. Chicago: Science Research Associates.

1975 Anthropology: The Cultural Perspective. New York: Wiley.

1988 The Cultural Experience: Ethnography in Complex Society, 2nd Edition. Prospect Heights, Illinois: Waveland Press.

Spradley, Thomas S. and James P. Spradley

1978 Deaf Like Me. New York: Random House

Sturtevant, Willam C.

1964 Studies in Ethnoscience. American Anthropologist 66(2):99-131.

Turner, Victor
1985 On the Edge of the Bush: Anthropology as Experience. In *The Anthropology of Form and Meaning*. Edith L.B. Turner ed. Tuscon: University of Arizona Press.
1986 The Anthropology of Performance. New York: PAJ Publications.
Tyler, Stephen, Ed.
1969 Cognitive Anthropology. New York: Holt, Rinehart and Winston.
Wallace, Ben J.
1983 Plants, Pigs, and People: Studying the Food Web in Pagan Gaddang. Ethnology 22(1):27-41.
Wangensteen, Owen H. and Sarah D. Wangensteen
1978 The Rise of Surgery: From Empiric Craft to Scientific Discipline. Minneapolis: University of Minnesota Press.
Werner, Oswald and Joann Fenton
1970 Method and Theory in Ethnoscience or Ethnoepistemology. In *A Handbook of Method in Cultural Anthropology*. Raoul Naroll and Ronald Cohen, eds. Garden City: Natural History Press. Pp. 537-78.