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**DIS/EMBODYING THE PREGNANT SUBJECT:
REPRESENTATIONS OF THE PREGNANT BODY
IN MEDICAL INTERVIEWS**

by

MARGARET PHILLIPS, B.Sc., B.A.

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

Master of Arts

Department of Sociology and Anthropology

Carleton University
Ottawa, Ontario
November 2, 1994
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**DIS/EMBODYING THE PREGNANT SUBJECT:
REPRESENTATIONS OF THE PREGNANT
BODY IN MEDICAL INTERVIEWS**

submitted by Margaret Phillips, B.SC., B.A.

in partial fulfillment of the requirements for
the degree of Master of Arts

Thesis Supervisor

Chair, Department of Sociology and Anthropology

Carleton University
November, 1994

ABSTRACT

This thesis draws upon the critical historical and feminist literature on the body and systemic functional grammar to examine how the pregnant body is inscribed as an asocial body within medical interview texts. While various traditions within the social sciences have developed critiques of the biomedical model, it is argued that without a social semiotic theory of language and meaning making practices, these traditions reinscribe a realist epistemology of the body as a physical entity outside the social and representation. In contrast, a systemic functional analysis of these interview texts reveals how the discourse semantics of a biomedical model is accomplished in the speech of physicians and women; and how it functions to produce meanings that normalize pregnancy and constitute the pregnant body not only as asocial but as two separate biological entities. While the predominance of these representational practices has consequences for how the pregnant body is lived in late 20th century western cultures, grammatical variations index semiotic resources available to women to make meanings that exceed biomedical discourse.

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A more personal thanks to those friends who have sustained me during this project for a period longer than I care to remember: to Barbara, Brigitte, Behnam and Ceylan. And a special note of thanks to Jane Keeler. Her work is a confirmation that the truth-effects of a cognitively distilled academic environment have a materiality that cannot be denied.

My final debt in a rather unconventional way is to the Sociology Department of Carleton University. Here, I've learned the depth and breadth to which the social sciences have marginalized the body - both as a theoretical arena of investigation; and through the minutiae of institutional practices that put into play, that constitute and govern, disciplinary productions of the 'self' - more particularly, the daily production of the text of possessive individualism. It is no surprise that many students, disinclined toward such disembodied ways of being, do what labour historians have endlessly noted when work conditions are 'unpalatable' - they walk with their feet, leaving only the trace of a statistic, a number, to be transformed into something other than its protested meaning.

PREFACE

"That's not what I meant to say," she answered evasively. "You priests will have to decide whether all this has anything to do with the devil or not, Father Terrier. That's not for such as me to say. I only know one thing: this baby makes my flesh creep because it doesn't smell the way children ought to smell."

"Aha," said Terrier with satisfaction, letting his arm swing away again. "You retract all that about the devil, do you? Good. But now be so kind as to tell me: what does a baby smell like when he smells the way you think he ought to smell? Well?"

"He smells good," said the wet nurse.

"What do you mean, 'good'?" Terrier bellowed at her. "Lots of things smell good. A bouquet of lavender smells good. Stew meat smells good. The gardens of Arabia smell good. But what does a baby smell like, is what I want to know."

The wet nurse hesitated. She knew very well how babies smell, she knew precisely- after all she had fed, tended, cradled and kissed dozens of them....She could find them at night with her nose. Why, right that moment she bore that baby smell clearly in her nose. But never until now had she described it in words.

Suskind (1986: 13-14)

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CHAPTER ONE

INTRODUCTION

[Technological medicine] also presuppose[s] a particular view of a person - that he is dissociable into a self and a body, and that this body is dissociable into elements. The model is similar to the servicing of machinery, with one very significant difference: since the self cannot leave the body in the doctor's workshop for repairs, the doctor and patient must negotiate ways of acting which will allow the physician to proceed uninterrupted. From this dilemma arises the tension between medicine as a human relationship, or joint adventure with healing as the goal, and medicine as the application of science to the human body.

Since the application of science to the human body is a relatively recent phenomenon, it is reasonable to expect that it has required an alteration in the consciousness of the doctor, of the patient, and of the social environment at large which condones this new form of relationship

K. Figlio (1977:266)

In every picture the foetus is solitary, dangling in the air (or in its sac) with nothing to connect it to any life-support system but 'a clearly defined umbilical cord'. ... Nowhere is there any reference to the pregnant woman, except in a single photograph at the end showing the newborn baby lying next to the mother, both of them gazing off the page, allegedly at 'the father'. From their beginnings, such photographs have represented the foetus as primary and autonomous, the woman as absent or peripheral

R. Petchesky (1987:61-2)

The delivery of health care, the myriad of daily interactions that occur between health practitioners and recipient/consumers of health services, is a communicative event (Frankel, 1984; Mishler, 1981; 1984). And as a communicative event, it is one site where cultural assumptions about our bodies are produced, re-produced, possibly challenged and transformed. The medical interviews I have taped and transcribed afford an opportunity to analyze and interpret representations of the 'lived' body, and more specifically

representations of normal pregnancy, negotiated and produced in interactions between women and their health practitioner.

My interest in critically examining these assumptions as they are realized in the medical interview takes its starting point from a number of distinct positions. First, it is broadly framed by a social science critique which argues that our health care systems and understandings of our bodies, our health, and illness have developed and are embedded within a western capitalist social formation (Doyal, 1979; Waitzkin, 1983; Lacquer, 1990; Duden, 1991). Second, it is informed by a feminist and social science critique of the epistemological divisions between the natural and social sciences in which our bodies have been configured as physical entities, concomitant with the project to retheorize 'the body' (Grosz, 1987; 1990; Kirby, 1991; Gatens, 1983; Probyn, 1991; Freund, 1988; 1990; Berthelot, 1991; Turner, 1992). These two positions, however, intersect for me on a third and more personal level as a health care worker who has lived the institutional limitations of the former; and as a feminist inspired by the politics of the latter, by both the necessity and the possibilities of thinking, speaking and living our bodies differently.

The specific research questions that inform this work are drawn from the critical literature on the body that cuts across the disciplines of history, medicine and philosophy, and the social sciences. What these critical writings on the body argue is that the modern physical body of biomedicine emerged historically at the beginning of the 19th century amid the cultural politics of a mind/body split. Furthermore, these scientific practices and representations of a body dissociated from the self, and from the social, have had widespread cultural ramifications: they have historically altered our consciousness, the

subjective experience of living our bodies. Feminist scholars and historians also point out that 18th and 19th century socio-political meanings of sexual difference were constitutive of the modern body. Women's bodies as the object of political administrative concerns were, in the emerging clinical space of the hospital, transformed into the 'reproductive' body, the object of medical intervention. The story of the pregnant body in western cultures is then an historically specific instance of the power of biomedicine to restructure human experience. The mathematization of the reproductive body has constituted women's bodies as a physical object of law-like phenomena amenable to acts of intervention. Moreover, feminists argue that with the expansion and routinization of antenatal biotechnologies in the last two decades, the surveillance and mathematization of the fetus has transformed the pregnant body from a single biological entity into two independent and competing biological entities. These new cultural representations of pregnancy have once again dramatically altered the meaning and lived experience of pregnancy.

What I propose to do in this thesis is to bring the critical insights of this literature to bear on the interpretive practices of reading and writing these medical interview texts. However, rather than simply read these texts for their thematic content, I will be using a method of discourse analysis, Systemic Functional Grammar (SFG), that provides me with a grammar - a theory of grammar. As a set of micro-analytic tools, this method will allow me to examine how the meanings that are made in these texts are derived from the linguistic system. This method of analysis will thus enable me to examine biomedical representations of the pregnant body, as well as power, the social agency that through self-positioning enables representations and the interestedness attached to those forms of

knowledge. In doing so, I will be using a form of discourse analysis that is essentially unused in the discipline of sociology as a theoretical and methodological approach to the analysis of social texts.¹

In focusing my research interests on questions of representation, power, and subjectivity in medical interviews, I will be asking the following questions of the interview texts: First, with respect to the critical literature on the body, is there evidence of representations of the body dissociated from the social and from the self ? And if so, how are these realized in the grammatical patterns across these interviews ? Second, do women's speech patterns conform to biomedical representations?; or, are there representations that exceed these? In effect, is there evidence at the grammatical level of shifts in subjectivity between an embodied and disembodied subject - what the literature suggests as shifts between *being* and *having* a body? Third, how are physicians and women positioned in social activity structures that regulate and accomplish the work, the meaning making practices, of the medical interview?

In looking at these questions, I will be examining the language used by physicians and women. Specifically, I will focus on two of the generalized functions that language serves: the ideational and the interpersonal metafunctions. Within the former, I will be analyzing transitivity patterns that indicate the relations between people and between people and things; that is, who acts, senses or talks and upon whom or what. This will be combined with an analysis of the ergative structure that indicates the grammatical

¹ The exceptions I am aware of are Weir (1995) and Roderick (1992). Most of the available literature using SFG as a method of discourse analysis is either in the discipline of linguistics or literary studies .

patterns of agency. Within the latter, I will be analyzing linguistic features that focus on who controls the organization of discourse, that is who gets to make meanings and when; and how a speaker's position or interestedness in discourse is either implicitly or explicitly encoded. These are features then of power and social agency in the act of making meanings.

What I will demonstrate with a transitivity and ergative analysis of the ideational metafunction is the importance of action and behavioral processes for the social semiotic transmission of biomedical discourse in the local historical context of these medical interviews - for naturalizing the body as an object outside the social and the self. Processes are generally represented in language by verbal groups. But the variation in grammatical patterns of physician-initiated action processes provides evidence for political representations that support a view of the fetus as separate and autonomous from women. I will also show how the social activity structures that accomplish the work of the medical interview are a function of controlling not only the turn-taking system, but the regulation of meaning making practices through the co-patterning of transitivity with mood, modality and personal deixis. In doing so, authorized speakers of biomedical discourse work to normalize the experience of pregnancy.

Contribution to the Literature

By asking these research questions and using the micro-analytical tools of Systemic Functional Grammar, I will be making an original contribution to a number of overlapping yet distinct sets of literatures. These are the sociology of health and illness; the feminist literature on the medicalization of the reproductive body, more specifically

pregnancy; the medical interview literature; and lastly, the interdisciplinary literature of social semiotics that pertains to scientific English. I will briefly outline what I see as the contribution of my work to these various literatures.

Sociology of Health and Illness. The literature on the sociology of health and illness has been concerned with the practices and outcomes of an interventionist biomedical model on a number of different levels. The political economy tradition, prominent within the Canadian literature on sociology of health and illness, has focused on a macro-level critique of biomedicine. These critics caution us not to confuse our health with the health care system (Rachlis, 1989); but they also point out that both our health, and the health care system are deeply embedded within a capitalist social formation (Eyer, 1988; Doyal, 1979; Waitzkin, 1983). The growth of the medical-industrial complex in general, and the pharmaceutical and biotechnology industries in particular, are central to capital accumulation. Yet the ameliorative function of individual curative medicine fails to address the broader social dimensions of health and illness - that our health is affected by poverty, work, nutrition, education and the environment, our social relations and systems of support (Doyal, 1979; Waitzkin, 1983). This tradition then clearly locates the issues of health within a political field, and addresses issues of social stratification - for example, which social groups' health are adversely affected by conditions of poverty and labour (cf. Coburn et al., 1987; Bolaria et al., 1988).

A micro-level tradition has, along with the political economy tradition, been prominent in British and American medical sociological literature (Frankel and West, 1991; Armstrong, 1987; 1989; Hunter, 1991). This tradition has from the beginning been

concerned with what have been conceived as micro-level problems of physician-patient interaction. In the interest of addressing problems regarding the efficacy of treatment regimes, these inquiries have traditionally focused on poor physician communication skills and their effect on patient compliance (Mishler, 1984; Frankel and West, 1991).

What I want to suggest, however, is that if we are to extend our critique of a biomedical model, we need to start from a position that links these different levels of analysis. The distinction made from within the political economy tradition between our health and the health care system has been important in shifting our focus on health to other institutional domains. Yet these critiques fail to make explicit a more fundamental link that underlies our current social, economic and political-ethical structures. As Drew Leder (1992a:2) has recently argued, explanations seeking to illuminate the current crisis of health care focus on economic, bureaucratic, technological aspects and medical training, but generally fail to consider the larger conceptual framework in which modern medicine is embedded.

It is this larger conceptual framework that is at issue for me - the historically emerging project of liberal humanism in the 18th century, what Foucault has referred to as an epistemic shift in the deeper structures of knowledge, of how body and self have been naturalized as separate epistemological domains. The conceptual practices of biomedicine that emerged at the beginning of the 19th century to 'naturalize' the body as a physical object have rendered the body more generally absent from other institutional domains. And only in the semiotic excesses of these institutions - through illness, disease, disability, and violence is the body foregrounded once again as a physical object to be

investigated by the biosciences. What must be taken into account is that the enduring strength and legitimacy of a biomedical model that constantly reconstitutes the body as a physical object continually spills over to undermine struggles for a broader based notion of health.²

Focusing my research on the conceptual and representational practices of the biomedical model suggests links between different levels of analysis. We know the outcomes of a biomedical model - a high tech curative approach to health and illness embedded in the medical-industrial complex. We know it's driven in a system whereby physicians as gatekeepers generate high and unnecessary costs based on biomedical assumptions. Furthermore, these primary care decisions about the provision of health resources have historically been instrumental in creating health policy and planning (Hunter, 1991). What we know very little about, however, is the site where this is accomplished - in the multitude of negotiated interactions between practitioners and recipients of health services. As Catherine K. Riessman (1987:115) has argued

In the context of a capitalist economy, large profits accompany each redefinition of human experience into medical terms, since more drugs, tests, procedures, equipment and insurance coverage are needed. As mentioned before, specific medical industries have played a direct role in influencing both physicians' and women's perceptions of reproductive control, premenstrual syndrome and weight. Yet it is important to emphasize that corporations, in their effort to maximize profits, work *through* both physicians and women. (emphasis in the original)

² See Ontario (1991) for an example of the contradictions in which the debates on health and health care are embedded. The first section of this report outlines the social epidemiological factors of health, while the final pages argue for the need to remain competitive in a global economy in order to support our present health care system. This final statement conveniently overlooks how these are the very conditions that contribute to the epidemiological factors so carefully outlined in the first section.

If the medical interview is a social space where meanings produced between practitioners and patient/clients result in decisions about one's health status based on the assumptions of a biomedical model, thereby producing and consolidating its dominance not only institutionally but more broadly across our political-ethical structures, then the interview is an important site to extend our critique of a biomedical model.³

In taking as my starting point 'the body' and the representational practices that naturalize it as a physical object, I am suggesting that there are certain limitations to both macro and micro level analysis that fail to address the conceptual aspects of a biomedical model. A macro level approach while addressing the outcomes of a high tech interventionist biomedical model fails to examine more explicitly the processes, the meaning making practices through which the assumptions of a biomedical model are accomplished. And without examining meaning making practices, issues of power, social structure, agency, and social change remain vague and undertheorized. The more conventional notion of social structure conceptualized as top-down is reified as a pre-given entity that determines outcomes. (Boden and Zimmerman, 1991). Furthermore,

³ See Rachlis and Kushner (1989) for a critique of micro-level medical practices that have implications for health policy and planning. They argue that one of the fundamental problems of our health care system is the "unscience" of medicine. While complex technology has come to symbolically represent effective health care, the lack of critical evaluation has served to legitimate costly and ineffective clinical practices (see also Waitzkin, 1983). The lack of random clinical trials for determining the efficacy and safety of treatment regimes has resulted in both over-diagnosis and over-treatment. Their argument is a significant and welcome one for it points to the limitations of costly pharmaceutical and surgical intervention, calling into question diagnostic categories and treatment regimes and the health policies that support them. And in doing so it shifts the politics of health back to other institutional domains. However, the assumption that we can "scientifically" test the efficacy of any treatment regime still rests on a fundamental assumption of the biomedical model: that biology is a constant.

change conceived of at a macro level, overlooks how change is constituted at the level of the subject (Henriques et al, 1984).

At a micro-level, medical sociology's focus on communication practices between physicians and clients has challenged medical practitioners to reconceive of their 'object' as a subject. Yet David Armstrong (1987; 1989) suggests that rather than challenge the biomedical model, medicine's response has been to reformulate its practice within a hierarchical biopscho-social model. What Armstrong is arguing is that through a hierarchical lens a health problem can be viewed on different levels of analysis, yet the biomedical domain - the sphere of biology, remains at the top unchallenged by the subordinated levels of the psychosocial. Armstrong's critique reveals first, the epistemological authority of the biosciences to contain challenges to the biomedical model; and second, the theoretical limitations of a medical sociology that in failing to address issues of language and meaning making practices, fails to address the larger conceptual framework of a biomedical model. This will be an issue that I will return to again in my critique of the medical interview literature.

My contribution to the literature on the sociology of health and illness is thus two fold. First, I will be examining how fundamental assumptions of a mind/body split constitutive of a biomedical model are accomplished in the medical interview. But in order to examine meaning making practices, my second contribution is my theoretical and methodological framework of language as social semiotic (Halliday, 1978; 1985). While language is the data source for much social science research, there has traditionally been a lack of interest in language itself outside the discipline of linguistics. Language has

generally been viewed as transparent, simply reflecting or referring to a social reality 'out there', rather than a material source that systematically organizes our social world. Consequently, as Norman Fairclough (1992a:2) argues, "there has been a tendency to believe that the social content of such data can be read off without attention to language itself".

A social semiotic understanding of language combines theories of language at different levels (Fairclough, 1992a; Poynton, 1993). On one level are social theories of language and representation that draw on a range of theorists generally subsumed under the label of post-structuralism. The work of Foucault (1972), and Volosinov (1986)/Bakhtin (1981), among others, have been influential in the linguistic turn in the social sciences over the last two decades, in re-thinking how language, both written and spoken, is constitutive of objects of knowledge and social subjectivities. Foucault's (1972) archeological work is a critique of the subject constituted within liberal humanist discourse as a subject who guarantees knowledge. Moreover, the importance of Foucault's project is in suggesting that knowledge is organized through discursive formations - that objects of knowledge, concepts, and strategies are constituted in their dispersion across a range of institutional sites and disciplinary practices that regularly come into relation with each other.⁴ These are the deeper structures of knowledge of a given historical episteme through which "the voices of the social order" are spoken (Threadgold,

⁴ These are the theoretical underpinnings of historiographical debates in the history of science and medicine. See Shapin (1980; 1992) who argues that changes in science are neither 'internal' nor 'external' to science. It is a position that thereby refuses a science/society split. See also Figlio (1975; 1976) who examines how in the emergence of modern biosciences, concepts such as mind and body, and the metaphor of organization overlapped, drew upon and were central to a number of different disciplines and their knowledge producing practices.

1988b:170). Thus subjects not only speak, but are positioned in and consequently spoken by discourse.

If Foucault's concern to outline a methodological project for tracing structures of knowledge was part of a more general critique of the liberal human subject as guarantor of knowledge, then Bakhtin's (1981) social semiotically inclined notion of language has enabled us to think about variation and change in forms of knowledge. While subjects are constituted by social semiotic systems of knowledge, the semiotic resources of a given culture, their evaluative capacities are such that they re-accent or re-signify the meanings of practices at the level of immediate contexts of use. Terry Threadgold (1988b:170) in referring to Bakhtin's notion of dialogism suggests that it refers first to the "many voicedness" of the word in the sense that language patterns bear traces of where they have been before, for example different fields of knowledge and genres, etc. But second, in the dialogical turns between texts or turn-taking in dialogue, social agency enables the possibility of semantic variation and change. Language, then, is a form of social action, and is constitutive of reality maintenance and reality changing systems of meaning that engender social subjects.

But in order to take these theoretical insights on language and apply them to the analysis of social texts, it is also necessary to work with a grammatics, a theory of language at a micro-analytical level (Fairclough, 1992a; Poynton, 1993). It is this aspect of my contribution that I will foreground with respect to the feminist and medical interview literatures that take as their starting point the importance of language as a form of social action.

Feminist literature. Feminist literature on the medicalization of women's reproductive health has traditionally stressed the social control of biomedicine over women's bodies (Ehrenreich and English, 1978; Corea et al, 1987). More recently feminists interested in the power of biomedicine to restructure women's lives have turned to questions around language and subjectivity. Some literature has focused on how written medical sources (Oakley, 1984; Martin, 1987; Findlay, 1993) or popular media (Franklin, 1991) constitute women's reproductive bodies as deviant and therefore in need of medical intervention. Other researchers have interviewed women to understand women's own meaning making resources in subjectively taking up (Gordon, 1988; Quéniart, 1988) or resisting these biomedical forms of knowledge (Martin, 1987; 1991; Rapp, 1991). In a few instances, feminists have studied and/or taped the interactions between women and medical practitioners (Fisher, 1986; Todd, 1989; Davis, 1988) or between women and genetic counsellors (Rapp, 1988). While this work generally takes its starting point from language as a form of social action producing knowledge and regulating meanings about women's health, the analytical practices in analyzing both spoken and written language are, with the exception of Franklin's (1991) work on narrative structure, somewhat limited

Agency is ascribed to authorized speakers and writers of biomedical discourse but the analysis of language itself is very general. It tends to focus on individual lexical items, lexical metaphors, or thematic patterns read off from the data. But as Michael Halliday (1992: 9) has argued, it is not the metaphorical use of lexis that is at issue in scientific English but the use of "metaphor that lies in the grammar". Furthermore, critical aspects of representation such as agency are realized through highly specific grammatical features

(Poynton, 1993:6). Consequently, for those interested in post-structuralist theories of language, power and subjectivity, it is important to have a grammar, a theory of language at the level of the clause. My contribution to the feminist literature then is in my grounded analysis of representational practices that demonstrate the grammatically specific ways in which meaning making practices naturalize the body as an object within the institutional context of these medical interviews.

Medical interview literature. Alternative theoretical and methodological approaches to the analysis of physician-patient interactions developed in the 1980s. These approaches take as their starting point critiques of more conventional methodological analyses that fail to work with explicit theories of language and models of interaction.⁵ And in starting from a position that foregrounds language as a form of social action, these alternative approaches more generally have argued that language provides a link between macro and micro-levels of analysis (Fisher and Todd, 1983). Thus these researchers do not constitute their analyses of physician-patient interaction as a micro-level analysis in the traditional sociological sense.

⁵ See Mishler (1984) and Frankel and West (1991) for a critical review of mainstream sociological analysis of physician-patient interactions. They argue that early research (1960s) used retrospective surveys and interviews to document problems of patient compliance. But they assumed communication on the basis of a simple sender-receiver model. Later research in the 1970s attempted to be more methodologically 'scientific' and 'objective' using content analysis to code physician's speech patterns and then submit these variables to a statistical analysis. As Mishler (1984) argues however, researchers failed to make explicit the interpretive processes involved in transforming raw data into a transcript and coded categories. And without theories of language and interaction, they attempted to fix the meanings of language in what is fundamentally an interactive process. See also Mishler (1986) for a more general critique of qualitative and quantitative methods within sociology.

While reviews of this literature point to the variety of theoretical assumptions about language that result in differences of research design, and in the basic unit taken as the phenomenon of analysis, they also suggest that the literature falls into two broad forms of discourse analysis (Freeman, 1987; West and Frankel, 1991; Torode, 1989). One approach, conversation analysis, is interested in the interactional practices of participants to regulate the turn-taking system, and the indexical nature of speaker/hearers turns. For example, this literature focuses on the sequential action of questions and answers in the medical interview, on issues of interruption or overlap in talk and how these turn types are tied to the social identity of speakers. A second form of discourse analysis encompasses more broadly those who are interested in the thematic content of dialogue, and within this approach some researchers are subsumed more generally under the tradition of sociolinguistics (cf. Cicourel, 1983; 1987; Fisher and Todd, 1983, 1986; Tannen and Wallat, 1982; 1986).

One of the difficulties that I encountered, however, in reading the medical interview literature was that it did not provide me with the analytical tools necessary to address my research questions. While conversation analysis focuses on a model of interaction that controls discourse organization, it does not explicitly theorize language as a system. And the research oriented towards a thematic analysis generally fails to have the necessary analytic concepts and methodological tools to do a close analysis of social texts. I will return to these issues again in my critique of the medical interview literature in Chapter Two arguing that they are unable to address fundamental assumptions about

the biomedical model because of theoretical assumptions about language that limit their analytic apparatus.

Consequently, in order to analyze these texts for my research interests, I will be introducing a third method of discourse analysis to the medical interview literature, Systemic Functional Grammar.⁶ It is based on a much more elaborate theory of language in which the traditional dichotomies in linguistics between syntax and pragmatics, or system and process have been reworked within a Hjelmslevian dialectic (Thibault, 1991:12. Poynton, 1990: 237). Language use in situated contexts draws upon the system of language - the grammar, and in the process contributes to changing or maintaining that system. Thus grammar in a systemic approach is a functional grammar, rather than a formal one, oriented semantically to meanings in a context of use. I will elaborate on the features of Systemic Functional Grammar in Chapter Two when I contrast it with the two other analytic approaches. The relevance of using this form of discourse analysis, however, is suggested by Michael Halliday (1985:xvii) when he argues that

...a discourse analysis that is not based on grammar is not an analysis at all, but simply a running commentary on a text.....

A text is a semantic unit, not a grammatical one. But meanings are realized through wordings; and without a theory of wordings - that is a grammar - there is no way of making explicit one's interpretation of the meaning of a text.

My contribution to the medical interview literature thus is two fold: first, a different method of discourse analysis; and second, in using this method, it will allow me to

⁶ Mishler's (1984) work is the only example in the literature that broadly uses Michael Halliday's (1978) theory of language as social semiotic. His research focus is on coherence in the medical interview and he uses some aspects of the textual metafunction such as lexical and grammatical cohesion to examine this. However, he does not use SFG in any systematic way to develop an analysis of the ideational and interpersonal metafunctions. This will be a point that I return to again in Chapter Two.

address research questions regarding the biomedical model that are not possible within the other analytic frameworks of language available in the medical interview literature.

Social semiotics. My final contribution is to the social semiotic literature itself. With the exception of Jay Lemke's work (1990) on science in the classroom, work on scientific English has focused on the analysis of written scientific texts (cf. Halliday, 1988; Francis et al., 1991). My contribution to SFG will be to show what patterns of the ideational and interpersonal metafunction are relevant to the medical interview, and how these realize representations of the pregnant body. While there may be other lexico-grammatical patterns for the transmission of this discourse in written scientific and medical texts, a SFG analysis of medical interviews demonstrates the importance of action and behavioral processes in the social semiotic transmission of biomedical discourse in spoken channels.

Method

The most difficult part of this project involved the work of obtaining a set of medical interview texts⁷. Furthermore, as originally conceived, this project was to include not only medical interviews, but midwifery interviews as well. Thus between June 1992 and April 1993, my work involved establishing contacts with midwives, physicians and pregnant women, and collecting and transcribing taped interviews. A consent form, along

⁷ The medical interview literature reveals that most researchers involved in this work are either associated with medical teaching/research centers, as for example those associated with Harvard Medical School (cf. Mishler, 1984); or they are invited into institutional settings through established personal contacts with clinicians (cf. Fisher, 1986) or at the initiative of clinicians with an interest in examining problems of communication (cf. Silverman, 1987). Their institutional connections give them access to large data bases of taped interviews.

with an explanatory letter outlining my research interests, was developed and approved by Carleton University's Ethics Committee (See Appendix A).

As anticipated, the difficulty of obtaining consent from two participants for each interview occurred with respect to medical interviews. Midwives, with whom I had no previous personal contact, were generally receptive to the research and asked women in their practice if they would be willing to participate. However, without any personal medical contacts in my local community, contacting physicians directly did not result in any taped interviews. Through a variety of means - friends, posted notices, contacts with different pre-natal birth classes, and the Vaginal Birth Association, I talked with and/or provided information to pregnant women asking for their participation. Only one medical interview resulted from this approach. While there were other women who expressed interest, they either did not feel comfortable asking their physician, or the physician would not consent to the taping of the interview.

Essentially, the only way in which I was able to obtain medical interviews was through personal friends who themselves are physicians. And they enabled further contacts with other physicians who knew me previously in my former capacity as a health care worker. Similar to the midwifery interviews then, these physicians asked women in their practice for consent to tape the office visit. The difficulties I experienced in obtaining medical interviews underscores the importance of personal contacts in gaining entry to the field when doing work of this sort.

Transforming the data. In total, I collected 17 taped interviews, 8 midwifery and 9 medical interviews. Transforming interviews into texts, however, involves a number of

interpretive stages (Mishler, 1984; 1986; Riessman, 1993). First, the taped interview is not the same as the interview itself. While tape recording allows access to spoken forms of interaction, it can not possibly capture the range of social semiotic practices involved in the interview - that of gestures, postures, gaze, and touch to name but a few that are important to interactional knowledge and meaning making practices. Second, the act of transcription is an interpretive practice; it is thus a representation of the taped interview. The transcription process requires detailed interpretive decisions by the transcriber to transform a tape into a written text available for further analysis. The transcription conventions followed for these interviews were generally those developed within conversation analysis to represent sequential phenomena in the organization of language (Psathas, 1990:298-307).

Very briefly, these transcription symbols mark simultaneous or overlapping speech between speakers; gaps or silence within a speaker's utterance, as well as in between speakers; elongation or cutoff of sounds; the emphasis on syllables or words; sounds of inhalation or exhalation; and stretches of speech that are in doubt or not interpretable. A full outline of the transcription symbols used to interpret these texts can be found in Appendix B. While there may be more detailed transcription conventions, these were the ones I found particularly useful in transcribing the sequential aspects of the interview.

The discourse analysis of these interview texts using SFG was the third interpretive stage. The conceptual work of this project, however, underwent considerable revision after the collection and transcription of these interviews and prior to the next stage of analysis. The sheer volume of transcribed data generated by midwifery texts

which were usually an hour in length precluded their inclusion in the analysis. After limiting the next stage of analysis to medical texts, I chose five among the nine medical interviews to be analyzed. These five were chosen on the basis of the following criteria: all physicians were women whose practices consist of primary care responsibility for low risk deliveries in hospitals. While a sample size of five interview texts may be small in comparison to more conventional qualitative analysis involving interview texts, this sample size is warranted on two accounts. First, it is an exploratory study looking at grammatical patterns of biomedical discourse in medical interviews; and second, SFG as a method of discourse analysis is an extremely labour intensive process.

An analysis of the ideational and interpersonal metafunctions of language at the level of the clause was subsequently carried out for these five medical texts. In terms of the ideational, this involved an analysis of the transitivity patterns and ergative structure of the clause. And for the interpersonal, this involved an analysis of the mood system, modality/modulation, personal deixis, as well as discourse organization. The grammatics of each system, upon which the analysis is based, are outlined in Chapters Three and Four respectively on the ideational and the interpersonal metafunctions. Finally, the analysis of each metafunction and their co-patterning was interpreted in light of questions generated from the critical literature on the body.

The full transcripts of these texts can be found in Appendix C. This will enable readers of this thesis to examine the transcripts for themselves and re-examine the analysis and my interpretive reading and writing of these medical texts. For sociologists and other researchers in the social sciences unfamiliar with this type of discourse analysis, it will

provide an opportunity to conceive of the power of this detailed linguistic analysis in providing evidence to support their research claims.

Social production of texts. The five interview texts that were analyzed involve three family physicians. All three are women who completed family practice residencies in Ontario during the 1980s. They presently work in a small city in southern Ontario and have hospital admission privileges for primary care obstetrics of low risk pregnancies. The proportion of obstetrical care in their practice varies among them. All three physicians take referrals from other family physicians for low risk pregnancies. One physician in a solo practice handles, on average, 4-6 deliveries a month. The other two physicians share an obstetrical practice as part of a family practice. However, the practice of one of these physicians consists entirely of referral obstetrics. Her practice ranges upwards of on average 20 deliveries a month. These shared obstetrical practices among family physicians, and referral obstetrics for low risk deliveries from other family physicians is the outcome of a number of changes that have occurred over the last decade.

First, the presence or absence of medical teaching institutions affect local patterns of physician care for low risk pregnancy. In larger centres where medical teaching institutions are present, much of the obstetrical work including low risk pregnancies is provided by obstetricians, their residents, and interns. Few family physicians have hospital admission privileges for obstetrics. In this city however, with few obstetricians, family physicians for a number of years have provided much of the care for low risk pregnancies. During the mid 1980s a new pattern of obstetrical care developed. Fewer family physicians were interested in providing this service. This was a combination of the

irregular hours involved in this work, but it was also perceived as not financially rewarding. Some family physicians, in making choices about where and when to work extra hours, found emergency shifts at the local hospital to be both more predictable and more lucrative. In this particular local context, these women started medical practices during the 1980s when there was a shortage of family physicians doing primary care obstetrics. For these women, obstetrics was one of the more rewarding aspects of their practice, and they chose to either expand or develop a sole or shared practice based on obstetrical referrals from other family physicians.

Of the five medical interviews analyzed, four range between 10 to 12 minutes in length while one is approximately 7 minutes. One additional aspect to these interviews that makes them somewhat unique is that at the time of taping, one physician has just returned from maternity leave after the birth of her first child, while another physician is 38 weeks pregnant.

Some basic demographic information about the five women in the interviews was obtained through a short questionnaire which women filled out at the time of consent. While all women are English speaking and culturally identify as Euro-Canadians, there are social differences as well as differences in their personal histories of pregnancy. These women range in age from 22 to 27 years old. In terms of women's personal histories, it is a first pregnancy for one woman (Text D); a second pregnancy for two women (Text B and E); and a third pregnancy for another two women (Text A and C). However of this latter group, one woman (Text C) had a previous pregnancy in which the baby was born prematurely at 24 weeks and died shortly thereafter.

With regard to social differences, in terms of education, two women have high school education only, one woman with a grade 10 education is a homemaker (Text C), the other woman works as a cashier (Text D). Two women have college education, one is a homemaker (Text A), the other an addiction counsellor (Text E). The fifth woman is a teacher with university education (Text B). These women's partners are all employed in trade occupations, such as construction, millwright, tool and die, carpenter and truck driver. The main social differences among these women then appear to be based on education.

In turning now to an outline of chapters for this thesis, in Chapter Two I will focus on a critique of a realist epistemology of the body. I will outline the features of a biomedical model and argue that not only the representational practices of the biosciences, but also those of the social sciences produce an understanding of the body as a physical object outside of representation. Representational practices that naturalize the body as an object outside the social need to be investigated in light of their power to support a realist epistemology of the body. I will argue that while the methods of discourse analysis available in the medical interviewing literature focus on language and problematize the biomedical model as a set of social and cultural practices, they fail to explicitly address a realist epistemology of the body. I will then introduce a social semiotic theory of language arguing that Systemic Functional Grammar as a method of discourse analysis will enable me to address research questions regarding representations of the pregnant body.

From there I will proceed to an analysis of the medical interview texts. In Chapter Three, I will focus on an analysis of the ideational, the representational function of language. I will outline the grammatical theories of transitivity patterns and ergative structure, and then outline my analysis providing examples from the text. With this analysis, I will demonstrate the importance of action and behavioral processes as forms for the social semiotic transmission of biomedical discourse. In Chapter Four, I will examine the interpersonal metafunction of language. By analyzing the linguistic features of the mood system, modality and personal deixis, I will show the various ways in which women negotiate physician control of the organization and regulation of meaning in the medical interviews. In the final chapter, Chapter Five, I will re-examine my analysis focusing on the interdependence of the ideational and interpersonal metafunctions in making meanings.

CHAPTER TWO

RETHEORIZING CORPOREALITY

My interest in analyzing representations of the 'lived' body is embedded more broadly in a feminist and social science project to retheorize corporeality (Grosz, 1987;1990; Kirby, 1991; Gatens 1988; Probyn, 1991; Freund, 1988; 1990; Berthelot, 1991; Turner, 1992). Conventional notions of health and disease, body and self are contained within a biomedical model of corporeality in which the body, as a physical entity, exists outside of history and systems of representation (Grosz, 1987; 1990; Duden, 1991). But in retheorizing the domain of corporeality as the 'lived' body, I neither wish to take up a purely phenomenological position of the body as the ground of unmediated experience, nor the more endemic position within the social sciences of an abstracted notion of the body as socially constructed (Turner, 1992; Kirby, 1991; Freund, 1990; Probyn, 1991). To reconceive of the domain of corporeality as the 'lived' body is, rather, a project that problematizes conventional relations between representation and 'the real' in which the interpretive practices of the natural and social sciences are themselves imbricated. And it requires theories of representation that enable us to reconceptualize corporeality as a "structure of feeling" (Probyn, 1991; Freund, 1990): the body as the incorporation of the social, inscribed within cultural systems of representation that are invested with meaning, and psychically and libidinally lived (Grosz, 1987; 1990).

The alternative medical interview literature of the last decade which foregrounds the relation between power and communication in institutional talk has to a certain degree

addressed some aspects of the biomedical model. Analyses of medical interviews in the traditions of conversation analysis [CA] and sociolinguistics draw attention respectively to the local and extended context in which any local interactive order takes place. And in doing so they argue that diagnosis, treatment, and health status are not pre-given entities but are dependent upon the negotiation of members' sociocognitive processes: in the case of CA, at the level of temporal and sequential organization of dialogue (cf. Frankel, 1984; 1990; West, 1984; ten Haven, 1991; Fisher and Groce, 1990); and within sociolinguistics, at the level of representational strategies wherein schematic mental models interact with local contingent knowledge (cf. Cicourel, 1983; 1987; Tannen and Wallat, 1982; 1986). While these analytic traditions foreground the biomedical model as a set of social and cultural practices asymmetrically negotiated, and interactively produced in and through members' practices, they fall short of an adequate theory of representation that allows for a critique of conventional notions of corporeality. Without taking as their starting point a critique of 'the body', the tendency is to re-produce a biopsychosocial model of health and illness which, as I have already noted, maintains a hierarchy wherein biology, as a separate domain, remains at the top distinct from the psychosocial (Armstrong, 1987; 1989; Leder, 1992b).

What I will argue is that critiques of the biomedical model must take as their starting point a critique of a realist epistemology of the body and the foundational assumptions that follow from it: liberal humanist notions of the subject as a unitary, rational, self dissociated from and possessing a body; and the transparency of semiotic systems in general and language in particular. In order to do so, I will first outline how

the notion of a 'lived body' focuses our attention on how the biomedical model as a system of representation inscribes and delimits bodily perceptions. It is a position foregrounding the notion that the body is always already social - not, however, at some abstract level; but that the modern body as the object and effect of the medical/ scientific gaze is the historical outcome of these truth-effects, the consequences of which we 'live'

A review of the critical historical and feminist literature on the body suggests a series of dichotomies inscribed by representational practices that support a realist epistemology of the body: the body, in its association with nature, is removed from the social and dissociated from the self. Furthermore, the pregnant body is spoken as a body possessed, and constituted as two separate and competing entities. Yet as these literatures also point out, the inscriptions of modern medicine are never complete and thus the pregnant subject experiences shifts in modes of embodiment, between *being* and *having* a body. In light of these critical insights generated from the literature, I will suggest that these medical interviews be examined for evidence of representational practices that inscribe the body within these various dichotomies.

Second, following a brief review of the medical interview literature, I will argue for a social semiotics of language, both as a theory and methodology for examining representations of the body produced in medical interviews. The current methods of discourse analysis available in the literature have limited micro-analytical tools, and therefore restrict the kinds of research questions that can be asked. By introducing a third method, Systemic Functional Grammar, I will demonstrate how this method of analysis enables me to examine representational practices that naturalize the body as an object

outside the social. In short, medical interviews as a set of social and cultural practices are local sites in which technologies of self, the meaning making practices and processes of subjectification, re-inscribe and/or transform systems of meaning that are subjectively experienced and 'lived'.

The Lived Body

Epistemological Divisions of a Mind/Body Split

One of the fundamental challenges for me in this project has been to struggle with the constellation of assumptions around health and disease, body and self, referred to more generally as the biomedical model. As critics both within medicine and the social sciences point out, the biomedical model developed historically within the conceptual space of a mind/body split embodied by the epistemological divisions between the natural sciences and the social/cultural sciences and their respective fields of knowledge (Turner, 1992; Probyn, 1991; Grosz, 1987; Armstrong, 1987; Spicker, 1976; Leder, 1992b).

Within the domain of biosciences - of physiology, anatomy and biology, our conceptions of the body, of corporeality, have been conceived as a physical object, the phenomenon of which are to be observed, described and normalized according to the statistical regularity of calculable norms. Conversely the conceptual side of this dualism, the mind, has been the object of the human and social sciences. As Elizabeth Grosz (1987:5) notes, the mind has been associated with the subject or self, reason, and culture, the products of which are historical. In contrast to the body as an organism - the 'lower order' sensations and processes that tie it to nature, the mind and its cultural products are what distinguish man from animals. Furthermore, these dichotomies between mind/body

and culture/nature were also combined with gender. Not only were women associated with the relationally less valued side of these dichotomies - body and nature, but the very opposition between science and nature was visually and verbally constructed through sexualized metaphors that personified a masculine science as 'unveiling' a feminine nature (Jordanova, 1989).

In examining the implicit assumptions of a biomedical model, Elliot Mishler (1981) notes that one of the primary assumptions is that disease is conceived of as a measurable deviation from a quantitative biological norm. This assumption realized in the interventionist practices of institutional medicine is both the outcome of, and support for, a fragmented and technological approach to the body (Mishler, 1981; Figlio, 1977). In addition, feminists have argued that the biomedical model is normatively male; that in the complex associations between mind/body and gender, women's bodies have been negatively defined in relation to a male body. Consequently, the perceived unruly nature of women's bodies has been the basis of pathologizing and intervening in women's normal biophysiological processes (Grosz, 1987; Martin, 1987; Ford, 1986), as well as the historical basis for excluding women from the body politic (Gatens, 1988; Pateman, 1990; Schiebinger, 1989). Thus, these implicit assumptions and configurative social understandings of the body have had tremendous social consequences for women. It is important then to be more explicit about the assumptions of a biomedical model and how they are accomplished in and through the work of bioscience and medicine.

As Mishler (1981) argues, the outstanding feature of a biomedical model is how in its focus on the biological sphere, with emphasis on biomolecular pathogenesis and

biological deviations from a measurable norm, it strips away the social context. But what is important about Mishler is that in his critique of a biomedical model he goes a step further. He points out that we can acknowledge the importance of social context, the necessity to socially contextualize the biological domain as for example with epidemiological studies, but without in fact challenging the assumptions of biomedicine - the diagnosis and disease categories taken as a given.

In doing so he draws attention to how a biomedical model fails to account for another social dimension - its own practice, the way in which signs and symptoms are turned into a culturally specific representation of the body. The assumption that signs and symptoms of disease are constant over time and across social/cultural context can only be sustained on the understanding of disease as an abstracted object (1981:10). The biosciences and medicine thus fail to account for how scientific research, diagnosis and treatment are socially organized activities bound up with wider social and cultural values

However, while Mishler's insights may no longer be new, and the biomedical model is now widely regarded as a culturally specific representation of the body, the implication of these insights needs to be drawn out. The biomedical model, in contrast to other cultural representations of the body, is not that which simply reflects or most adequately represents 'the real' body. As a conceptual apparatus, a system of categories and classifications realized in the practices of laboratory and clinical medicine, it marks and inscribes our bodies constructing and delimiting our bodily perceptions.

What is difficult perhaps to conceive is that the culturally dominant conceptions we have of our bodies and our bodily perceptions are a relatively recent phenomenon. The

point that Barbara Duden (1991;1993) has so forcefully argued is that with the emergence of the modern body at the end of the 18th and early 19th century, there occurred a transformation in bodily perception - that is, how we experience our bodies. If bodily perceptions of the baroque body were constituted by a self "which extended into a unique and inviolable corporeal volume", a body open and porous with the external world and unmarked by sexual difference, by the 19th century bodily perceptions had been transformed and secured through the practices of modern medicine (Figlio, 1977:277, Duden, 1991).

Furthermore, as Thomas Lacquer (1990) has argued, the transformation of the body which included a shift from a one sex to a two sex model of the body was not internal to science and medicine but was intrinsic to the social, political and economic changes of 18th century western Europe. Increasing concerns over the health and utility of the social body and political pressures to reformulate old social hierarchies in new ways resulted in both the surveillance of the social body and investigation of the living body (Foucault, 1980; Lacquer, 1990; Duden, 1991; Jordanova, 1989). As rigid social boundaries of the old social and political order collapsed under the rhetoric of equal rights, the foundations of difference were transformed from social to biological categories (Lacquer, 1990). Differences previously secured socially were relocated in the body, in 'nature', the laws of which could be investigated. And it was a project to which the work of science could lend its epistemological authority. Not only '*the* body' but a sexually differentiated and racially imbued 'body' were the object and the effect of the medical/scientific gaze. For science did not merely investigate difference, but rather it was

constituted within practices of the medical/ scientific domain (Lacquer, 1990; Duden, 1991; Jordanova, 1989; Stepan, 1990).

Thus the decorporalized self-image of the male bourgeoisie, central to the creation of a new body politic (Outram, 1989; Gatens, 1988), was consolidated in the transformed clinical space of the 19th century hospital. The ability of science to intervene in the body, and the investigation of bodily differences constituted through the medical scientific gaze altered the meaning of the living body. What took hold was the notion of a self, dissociated from and only loosely possessing a body, as well as a body marked by sexual incommensurability (Figlio, 1977:277; Duden, 1991; Lacquer, 1990; Schiebinger, 1989).

Efforts to address the negative implications of a biomedical model and retheorize corporeality have been taken up both within the domain of medicine and the social sciences. Physicians, working within the fields of medicine and philosophy, have argued that the biosciences, with their emphasis on objective measurements of anatomy and physiology, gradually transformed the *living* body into a *physical* body. The physical body, then, as an abstract and inanimate entity is paradigmatic to the biosciences and clinical medicine (Spicker, 1976; Leder, 1992b). But in arguing from a phenomenological position, both Stewart Spicker (1976) and Drew Leder (1992b) draw attention to the living body as an intending entity. In making a distinction between the physical and the living body, Spicker (1976) suggests that while the living body is a source of knowledge for us for we *are* our lived body through which we are rooted in the world, the physical body is a derivative or weakened image of the living body - a thing or object that we possess. What Spicker draws to our attention then is the distinction between *being* and *having* a

body. He argues that while we now tend to associate the body with the physical body, the living body can never be reduced to the physical body and thus we oscillate between different modes of *being* and *having* a body.

Within the social sciences, feminists have argued that a negatively defined relation of sexual difference was socially configured within 19th century cultural metaphors of 'production'. Framed by health concerns over the economic, cultural and biological capacities of the population to re/produce, the generative capacities of women's bodies were investigated for their 'reproductive' functions (Duden, 1991). As Emily Martin (1987) argues with this shift to a re/productive metaphor, menstruation came to be viewed as failed production while menopause was constructed as the failure of the authority structure of the body. Thus a range of bio-physiological processes associated with women's menstrual cycle have, from the 19th to the 20th century, come to be teleologically defined in relation to reproduction, or lack thereof (Findlay, 1993).

The consequences for women of a mechanical and pathologized understanding of women's reproductive health is demonstrated by the fact that they may now receive synthetic hormonal treatment for normal biological processes from puberty to menopause (Ford, 1986). Yet even within a model that values 'production', a mechanical metaphor of the body as machine has also had consequences for how pregnancy and childbirth have been medically managed. Martin (1987) argues a mechanical understanding of the uterus as an involuntary muscle that does the labour leaves out the emotional dimension of women's lives and the effect this has on their ability to participate in labour. Furthermore, the standardization of stages of labour tends to mark individual variations as deviations

(Martin, 1991). This understanding of the body and labour then lends itself to active management and technological intervention if uterine contractions stop.

While a phenomenological critique of the biomedical model offers important insights, and the emphasis on the social production of knowledge about the body is central to my concerns, there are however common problems in what, on the surface, appear to be mutually exclusive positions from which to critique a biomedical model. In arguing for an analysis of representations of the lived body, I want to be more explicit in how I understand the notion of the living body in distinction from the position put forth in phenomenology which contrasts the living body with the physical body of biomedicine. I will do this by tracing out what I see as the common problem of a realist epistemology of the body both in the social constructionist and phenomenological traditions.

In the social sciences in general and sociology in particular, the absence of the body is maintained through exclusionary disciplinary boundaries. When the body is, however, brought into relief, it is generally at an abstract level of social construction. In failing to account for the living body, both positions reinscribe foundational assumptions of a self dissociated from a physical body (Freund, 1988; 1990; Turner, 1992). These problems are particularly evident in feminist formulations of the body.

While feminists have been concerned with pointing out the implicit male bias in the social construction of scientific and medical knowledge about women's bodies, both Duden (1991) and Findlay (1993) argue that the general tendency has been to perceive this in terms of misperception or deception. Despite a focus on the social nature of knowledge production, this perspective still assumes that if we rid science of its inherent

male bias or irrational elements women's 'real' bodies will be revealed. This perspective not only helps to reassert a division between science and society, but, as Duden (1991) argues, it belies an understanding of the body as a fixed stable entity outside of history, thereby reproducing the very assumptions of a biomedical model feminists set out to critique. Thus, despite the centrality of the body to feminist politics, to feminist claims for women's autonomy and control of their bodies and their critique of the biomedical model, some feminists have recently argued that the body has been undertheorized (Grosz, 1987; 1990; Kirby, 1991; Probyn, 1991; Gatens, 1988). That in avoiding the biological domain, we implicitly reinscribe the biomedical model of a body as an object, a physical entity. There are a number of reasons, however, why feminists have avoided theorizing the body or the biological domain.

Given that women's subordinate social status has been justified on the basis of their different biologies, feminists have frequently focused on strategies of equality. But in foregrounding women's conceptual capacities, we reproduce one of the fundamental assumptions of the biomedical model - a mind or self separated from the body. This is most evident in the sex/gender distinction that feminists deploy in differentiating between biological sex and the social construction of gender (Threadgold, 1990; Grosz, 1987; 1990). Vicki Kirby's (1991) critical comments on the essentialist debates of the late 1980s bring the full force of the body's theoretical absence to the fore.

The feminist debates around essentialism foregrounded the importance of a non-essentialist understanding of 'woman' - in its biological as well as social and cultural variants. Any simple reverse valorization of women's culture or universalizing of women's

experience was thus undermined. These debates were also critical for a shift in understanding subjectivity as unstable and multiply constituted through historically specific systems of meaning and meaning making practices (Alcoof, 1988; Weedon, 1988; de Lauretis, 1987; 1990). But Kirby (1991), in reaction to what she now perceives to be automatic and prescriptive opposition to essentialism, cogently argues for the need to rethink the problematic of essentialism. It is not a matter of questioning the meaning of essentialism, but rather, it entails asking different questions.

Given that we can't simply excise or escape essentialism in so far as its truth-effects are already that around which feminist politics coalesces (Kirby, 1991; Probyn, 1991), we need to ask how do the 'errors' of essentialism work

How is "essence" entailed, made proper, installed "as such" and naturalized within our thought and our being ? How does it congeal into an embodied reality ?
(Kirby, 1991:9)

Kirby argues that feminists who dissociate themselves from the "danger zone" of essentialism, theorists who eschew a realist epistemology of the body, in fact actively reinscribe it when, in addressing the corporeality of women, they deny the relevance of the biological body. By separating the politics of representation from the facticity of the biological body, Kirby argues that

the real/representation distinction will reassert its comfortable wisdom precisely because it reiterates the most adequate conceptualization of materiality as something fundamentally other than its representation. (1991:8)

What Kirby's argument brings to the fore is how a biomedical model of the body as a physical entity is embedded within and sustained by a realist epistemology. It is an epistemological tradition that supports a view of the body as existing outside systems of representation. And the distinction between representation and the real is in turn

conditioned by, as well as the conditions for, a series of other dichotomies around science/society and individual/society in which the practices of both the natural and social sciences are embedded (Findlay, 1993; Figlio, 1977; Henriques et al, 1984).

Kirby's critique is an important one to grasp and is a central theoretical premise of this thesis. While the body is never lived outside systems of representation, her critique points to the representational *practices* of both the biosciences and social sciences that represent the body as such. The point then is not simply to argue that the pregnant subject is either embodied or disembodied, but to investigate which representational practices are implicated in naturalizing the body as a physical object dissociated from the social and from the self. And furthermore, to examine how these representational practices are subjectively taken up or transformed and congealed into an embodied reality.

Phenomenology, in contrast to the social constructionist tradition, is important in refocusing our attention on the body as a source of knowledge, in recognizing the body as animate, an intending entity. Feminists have also turned to the phenomenological tradition as a way to critique the biomedical model and retheorize corporeality as an embodied subject (cf. Bigwood, 1991; Young, 1984). Drew Leder (1992b) argues that in attempting to intertwine the physiological with the existential dimensions of people's lives, the notion of the lived body is more than simply a biopscho-social approach for it attempts to take us beyond the conceptual dualisms of mind and body. What I am arguing, however, is that a phenomenological approach to the living body without a theory of representation results in an unproblematized notion of experience. While Spicker's distinction between the living body and the physical body is useful for it implies

different modes of bodily perception, I would suggest that it is also somewhat misleading and in fact reinscribes a realist epistemology. There are a number of consequences that follow from suggesting that the physical body is a derivative or weakened image of the living body.

While the physical body is envisaged as "inscribed" by the biomedical model, in contrast the living body as the ground of experience becomes that which is a priori or pre-social. Despite the emphasis on the living body as an intending entity bound up with the social, the body itself, however, is still outside systems of representation. And without specifically addressing how the body is always bound up with cultural systems of representation that socially organize and inscribe the body, we are left with the impression that the living body is the '*real*' body in distinction to the physical body of the biomedical model. Consequently, while phenomenology addresses the conceptual apparatus of the biomedical model as that within which medicine operates to investigate the molecular pathophysiology of disease, it fails to address it more generally as the predominant cultural apparatus in and through which our bodies and social subjectivities are constituted. The point I am arguing is that the physical body of the biomedical model is a mode of bodily perception through which we experience our world. And while it may not be the only mode of bodily perception, it is the most predominant mode in 20th century western culture in which we 'live' our bodies. Thus the physical body is not in distinction to the living body, but is a particular mode of living the body.

The significance of pointing out the historical transformation from a self extended into a unique and inviolable corporeal volume to a self dissociated from and loosely

possessing a body is to argue that both are modes of bodily perception that are 'lived' While the baroque body has been described as "internally undivided and externally unbound" and antecedent to the modern body in western cultures, it was not pre-social but was socially configured and inscribed within its own cultural systems of representation (Duden, 1991:12). As historians of science and medicine point out, the body which for centuries was embedded within Aristotelian metaphysics and Galenic medicine was constituted through multiple metaphorical connections associating the microcosm of the body with the macrocosm of the universe (Lacquer, 1990; Duden, 1991) Tracing this historical shift in cultural systems of meaning enables us to understand how the lived experience of pregnancy has been historically transformed.

Historical Transformations of the Pregnant Body

Until the early to mid 18th century, women's conceptions of the unborn and their bodily perceptions of pregnancy were radically different from how women experience pregnancy in western cultures today. Constituted within a one sex model of the body in which there were no sharp biological boundaries between the sexes, within a corporeal economy of fungible fluids and an anatomy of isomorphism, women experienced their bodies as a place of invisible flows and changeable fluids (Lacquer, 1990; Duden, 1991). Emotions such as anger and fear figured centrally as causes that could alter inner flows. Fluids changed directions taking erroneous paths or they might stagnate and cause pain. The outpouring of fluid, however, from external openings signified a cleansing of the body, the evacuation of stagnating fluid. Within this personal sphere of inner fluxes and outer flows, women were at the epistemological centre of their sufferings. Within a one

sex model of the body neither the notion of passive and calculable law-like phenomenon nor a sexually differentiated body had taken hold with respect to the living body. Consequently, the cessation of menstruation, miscarriage and pregnancy generated a multitude of highly ambiguous and personal meanings. Quickening, the perception of fetal movements, signified pregnancy, and thus a woman's subjective knowledge alone determined her pregnancy (Duden, 1991, 1993).

In the late 20th century, women experience pregnancy through an entirely different cultural system of representation. Disease is no longer an abstract entity, nor even a qualitative alteration in the state of a person, but has been transformed into a quantitative deviation from a quantitative measure (Figlio, 1977; Mishler, 1981). The mathematization of the pregnant body is best exemplified by the reconstitution of pregnancy within a medical paradigm of a fetus 'at risk'.

Feminists have argued that the medicalization of pregnancy in the 20th century has historically redefined the meanings of pregnancy, childbirth and motherhood, and in the process restructured women's experience of them (Oakley, 1984; 1987b; Riessman, 1987; Overall, 1987; Duden, 1993; Martin, 1987, 1991; Rapp, 1991). The shift in relocation of childbirth from home to hospital by the mid-20th century depended on biomedicine's ability to use the demands of women for better health services, and convince people of the need for technologies, as well as hospital based births that they controlled (Riessman, 1987; Oppenheimer, 1983).

However, the unprecedented expansion and redefinition of pregnancy and childbirth as abnormal has largely occurred since the 1950s with the development of ante-

natal technology (Oakley, 1984; 1987a) Prior to the 1950s, knowledge about the fetus could only be obtained through clinical examination and women's own knowledge. With the stabilization of infant and maternal health and mortality post World War II, biomedicine turned to the fetus as a new object of inquiry. In tracing the historical development of ultrasound, Oakley (1984) suggests that the routinization of ultrasound is symbolic of the general expansion in technologies of fetal surveillance.⁸ Ultrasound went from being a relatively unknown antenatal technology in the 1960s, to a technology used in selective cases of high risk pregnancy during the 1970s, to a routine obstetrical practice by the 1980s. But what is remarkable is that the routinization of ultrasound occurred without clinical evaluation of risks or benefits. While diagnostically it may be useful in selective high risk cases, there is no substantive evidence to suggest routine use positively affects the outcome of pregnancy. Moreover, its routinization has occurred without consent of patients.

Feminists argue that without evidence of substantial benefits to infant and perinatal mortality and morbidity, the expansion of antenatal technologies such as ultrasound, amniocentesis, fetoscopy, electronic fetal monitoring and placental research have been a means for expanded obstetrical control over the reproductive process (Petchesky, 1987; Oakley, 1984; 1987a). Technologies of fetal surveillance have facilitated the growth of a predictive medicine that focuses on the probabilities of pathologies. These so called 'objective' forms of knowledge generated by antenatal technologies supersede women's

⁸ See Rapp (1988; 1991) whose research is focused on the routinization of amniocentesis as an antenatal technology.

own knowledge of pregnancy and justify medical expertise. By redefining the meanings of pregnancy and childbirth, biosciences have transformed clinical practice into the risk management of the fetus. Moreover, what is problematic is that with the intensified focus on the fetus, women's bodies are viewed as merely the route to the fetus, constructing women in competition with the needs of the fetus (Oakley, 1984; Petchesky, 1987; Eichler, 1988; Overall, 1987; Rogers, 1989; Duden, 1993).

To understand the construction of the fetus as a medical-legal entity, feminists point to the culture of science and medicine which privileges visual forms of knowledge, embedded more broadly in western culture's assumptions of the individual as an autonomous, independent being (Petchesky, 1987; Duden, 1993). In western bioscience, the interiorization of the body, the desire to 'see' inside, is part of a positivist epistemology that privileges vision as the primary means to knowledge. As Petchesky (1987:68) notes, vision enables a viewer to be detached from that which is viewed. But furthermore, she argues, the privileging of vision constructs a hierarchy of the senses that debases other sensory experiences and forms of knowledge. Antenatal technologies have therefore dramatically altered the relation between pregnancy and women's subjective knowledge. Only with technologies that can visualize the fetus does the construction of a fetus as a patient/person become possible.

Petchesky (1987) argues that as a visual intervention, ultrasound disrupts the bodily boundaries of pregnancy as an interior experience. The image of the fetus is projected as outside and independent of women's bodies. While the visual imagery of the

fetus on ultrasound may potentially generate many different meanings (Rapp, 1991)⁹, the popularized media image is of a man floating in space (Petchesky, 1987). These images are powerful for they are set within, and help to re-construct the meanings of a cultural politics in which the fetus is viewed as an autonomous individual, a medical-legal entity. Surveillance of the fetus has enabled anatomical measurements of the fetus at different stages of development, and these standardized measurements normalize fetal development and growth. But by submitting the fetus to regular surveillance, it has in medical terms become a patient, amenable to a range of medical interventions (Petchesky, 1987, Oakley, 1984).

The construction of the fetus as an independent patient has in turn had medical-legal ramifications for women. (Duden, 1993; Eichler, 1988; Rogers, 1989) Feminist critiques of a medical-legal apparatus point to how legal definitions of personhood are based on a biomedical model (Franklin, 1991; Duden, 1993). The notion of rights and autonomy conceived within medico-legal discourse is based on the notion of a cognitive self wherein the body is at best conceived as property excluding the emotional/affective dimensions of our lives (Cassell, 1992:244). But if a mechanical conception of the body devoid of intentionality is the predominant paradigm of medical-legal discourse, as Duden (1993) points out, the biological substratum of the fetus publicly constituted as "a life" has in the last decade been imputed legal status. This apparent paradox brings into full

⁹ See Rapp's (1991: 34) work for non-technological descriptions of fetal imagery. Images such as "liquid baby", "a little lizard" and "a cauliflower" were offered by spanish speaking immigrants who had little previous experience with technological hospital based pre-natal care

force the truth-effects of a biomedical model - that the individual is, in the last instance, merely a biological configuration (Venn, 1984).

The fetus, constituted as a medical-legal entity, is thus viewed as requiring an advocate other than the woman. As Christine Overall (1987) argues, the construction of women's interests in opposition to the unborn is the outcome of a medical view of the maternal body as a hostile environment; and a legal view in which medical interventions favourable to the fetus put the woman at risk without benefit. These changes have intensified the moral sanctioning of medical management of women's bodies, constituting the 'reproductive' woman as an eco-system to be medically managed, disembodimenting women and legally positioning them in opposition to the unborn child (Duden, 1993). The historical transformation of the pregnant body within modern biomedicine is not then simply the application of science to a single biological entity, but the constitution of the pregnant body as two separate and competing biological entities.

In light of this paradigm of a fetus at risk, feminists have more recently examined women's subjective experience of pregnancy. Some feminists have suggested that the emphasis on a fetus at risk has transformed normal pregnancy into a time of worry, insecurity, and isolation. Women experience an increased sense of responsibility for the normal development and growth of the fetus (Quénart, 1988). Furthermore, women's understanding of normal pregnancy and childbirth is one that assumes high levels of medical intervention (Gordon, 1988).

Other feminists, however, have suggested that women's reproductive consciousness is a complex negotiation among medical discourse, their personal fertility histories, and

social differences of class, race, ethnicity, and sexual preference (Petchesky, 1987; Rapp, 1988;1991; Martin, 1987;1991). Both Emily Martin (1991) and Rayna Rapp (1988, 1991) argue that white middle class women have greater access to medical discourse. While they are more likely to benefit from it as a means for controlling fertility decisions, paradoxically they may also be more controlled by it. In contrast, working class, Afro-American and Hispanic-American women have less access to medical discourse. While generally they also have less access to medical services they might benefit from, they use alternate systems of meaning within cultural, religious and familial communities to make sense of fertility decisions and outcomes. As a consequence, their lives are less structured and controlled by medical discourse.

By contrasting the cultural systems of representation within which women have experienced pregnancy in radically different ways is not to suggest that one or the other is a more 'true' representation of pregnancy. But it is to point to the cultural politics of representation and how these become embodied realities that are intimately lived. Science does not simply 'discover' and make visible 'facts' about the body that exist independent of their discovery. Rather, how we describe and organize our observations depends on an a priori conceptual apparatus through which we interpret what we 'see' and make visible

As feminists and historians of science and medicine have argued then, the production of knowledge in science and medicine, as a specific cultural domain, is not neutral but is embedded in and conditioned by, wider social and cultural values (Martin, 1987; Gatens, 1988; Grosz, 1987; 1990; Lacquer, 1990; Jordanova, 1989; Figlio, 1975; 1976; 1977; Duden, 1991; 1993; Shapin, 1980; 1992). But if scientific theory and its use

is always bound up with the process of its formation, then the construction of knowledge in the sciences - with its privileged epistemological status, in turn conditions wider cultural domains of our meaning making practices. Consequently, it is important to examine how the epistemological authority of science operates.

A Positivist Epistemology: The Social Semiotic Power of Science

While contemporary western science and medicine are constituted by a diverse range of practices and fields of knowledge, as Ludmilla Jordanova points out they nonetheless conceptually share

a distinctive orientation to the world, pre-eminently to 'nature', to the generation of coherent systems of understanding about the physical universe (1989:16)

Jordanova elaborates on this by suggesting that the

existence of a shared belief in the value of producing general propositions about nature, the physical 'out there', that can be tested empirically where appropriate, and that are rational in character, is of sufficient importance to warrant using the term 'science' to draw attention to this core. (1989:17)

Both Figlio (1976) and Jordanova (1989) have then argued that while science and medicine are distinct cultural domains, their visual images and verbal metaphors spill over into other social domains. In part, the power of the biosciences resides in the semiotic domain - the power of science to make meanings about the body or nature through its relation to realism both aesthetic and epistemological that justifies its interventionist stance. The aesthetic realism of biomedical illustrations of the body with their attention to detail and 'lifelike' appearance combine with a system of representation that posits the referent as external to the viewer - that is, a referent that 'exists' outside a perceptual

apparatus through which it comes to be represented. Representation is thus understood as merely transparent and reflective of 'reality'.

A transparent view of representation, moreover, has implications for how we conceive of the subject and its relation to the production of knowledge and the making of history (Henriques et al, 1984:112). Conceived as a subject outside systems of representation, the liberal humanist notion of a unitary, rational subject functions as the agent of social change and the knowing subject of science who can guarantee truth and knowledge through a scientific methodology. Consequently the importance of unpacking this relationship between representation and 'the real' reveals how a realist epistemology supports a system of entrenched beliefs about truth and the scientific method. By suggesting that 'truth' is independent of systems of meaning, it removes truth from the public domain and supports the methodological positivism of science. Science, then, with its claims to establishing rational, 'objective' knowledge becomes by default the means by which to establish claims to truth (Henriques et al, 1984: 110-111).

Epistemological realism with its dichotomous construction of 'the real' and representation is thus an apparatus of power constituted through scientific practices that enables biomedicine to naturalize biological and social categories as if they exist according to the 'laws' of nature which are simply there to be investigated. As Jordanova (1989) has argued, assumptions about appropriate social and cultural sex roles have historically been built into illustrations of the body. And the body image as a surface signifier of invisible 'natural' difference has in turn operated to uphold social and political conventions that self-evidently exist.

What I mean then by denoting the verb 'naturalize' is to draw attention to how epistemological realism obscures the social and cultural meaning making practices through which an object is 'created' by the activity of representation. Representation in the latter sense is not understood as reflective but as signification, an active process of signifying or making meanings. Furthermore, it challenges our notion of a unitary, rational subject. The subject is no longer conceived as outside of, but rather constantly reconstituted within, systems of representation. The subject as such is viewed as multiple and contradictory, dialogically produced through interactive processes. What this reconceptualization of the subject reveals is that the notion of a rational unitary subject is in fact a truth-effect of the very knowledge and representational practices it was deployed to legitimate (Henriques et al, 1984; Threadgold, 1988a; Thibault, 1991).

While visual representations are a powerful domain for naturalizing the body and nature, the language of science is another semiotic domain which evaluatively loads the object of its gaze. Karl Figlio (1976:19) has argued that the language of science is the "naturalized carrier of its context". This rather terse statement is important to unpack for its prefigurative social semiotic view of language.

Figlio, interested in the "dual nature" of science, argues that

science is a human activity dedicated to the naturalization of both experience and ideology, and to the expression of that achievement in language (1976:19).

Figlio's argument is that science is a metalanguage whose formal system of signification is concerned with theoretical and observational elements. Language, at the same time, however, is the 'vehicle' for ideological interests. Elements each with their own contingent history and shades of meaning are thus restructured into a formal scientific

metalanguage. Scientific metalanguage, Figlio argues, is thus like myth - depoliticized language transforming meaningful human discourse associated with activity into 'nature'. For as he notes, the very persuasiveness of scientific language "is based on the assertion that what it expresses is natural" (1976:19).

As the "naturalized carrier of its context", then, scientific language realizes wider ideological social and cultural values. But it is able to both convey and obscure these interests precisely because one of the most prevalent cultural values it realizes in language is the putatively value neutral and objective position of science. By suggesting that these cultural values are 'realized in language', I am arguing that the features of a scientific register, the co-patterned ways in which language is used to make meanings about nature and the body, are realized at the level of the clause (Halliday, 1985; Threadgold, 1988a). Terry Threadgold (1988a:58-59), identifying certain clausal features of scientific register, argues that by excluding explicit linguistic markers of the interpersonal dimension of language, the subjective meanings and interactions of an active seeing and doing subject, "the agentless, subject-less discourse of scientific objectivity is left" (see also Poynton, 1990:253; Francis and Kramer-Dahl, 1992). Furthermore, the notion that science merely describes the world as it is given is accomplished through the selection of relational verbal processes selected from the transitivity system of language (Lemke, 1985).

Unlike research in the laboratory, however, clinical medicine must deal directly with the contradictions within which it is embedded, of a body dissociated from a self. While the mathematized body is the object of investigation reliant on laboratory science, medicine has been challenged to reconceive of its object as a 'subject' within the

communicative relationship between practitioners and patients (Armstrong, 1987, 1989; Silverman, 1987; Tannen and Wallat, 1982; 1986). Yet as I have already argued, this has not significantly changed the biomedical model, but rather has contained it within a hierarchical biopsychosocial model (Armstrong, 1987; 1989).

To reconceive of the domain of corporeality as a hinge or threshold between culture and nature is not to dismiss or make irrelevant the biological domain. Rather, as Elizabeth Grosz (1987:7) argues, biology may

be regarded in continuity with social, cultural and psychological relations rather than in opposition to them. It would have to refuse the pervasive dichotomisation of mind and body, and nature and culture. *Biology must itself be amenable to psychical and cultural transformation*, to processes of re-tracing or inscription.

Rethorizing corporeality as a "structure of feeling" provides a productive tension between phenomenological and social constructionist insights. Our body is a non-discursive source of knowledge for us. Yet in the process of living in a socially organized world with cultural assumptions and system of meanings, and in the act of speaking and ways of doing, in re-presenting our selves, we make socially significant meanings which in turn re-inscribe and/or transform how we live and experience our bodies.

Elizabeth Grosz (1987; 1990) argues that the body as the incorporation of the social is the primary object of power relations; it is the means by which power is disseminated and inscribed within a network of sociohistorical power relations. But the body is also that which is tangibly lived and is crucial to subjectivity, to how we live and experience our bodies as our own. The positivity of power to generate socially specific bodies is effective precisely because of the social subjectivities it engenders (Probyn, 1991; Grosz, 1987). The technologies of self, the meaning making practices we perform

on ourselves and in interaction with others that constitute, maintain, modify or transform systems of meaning are the processes in and through which a biomedical model is congealed into an embodied reality.

A review of the critical historical and feminist literature has suggested a number of dichotomies through which we might expect the pregnant body to be inscribed and spoken in these medical interview texts. The historical literature has argued that the lived body has been transformed into an asocial body, a body dissociated from the self. Furthermore, medical-legal ramifications of a body inscribed as inanimate have been suggested by both the historical and feminist literatures: the notion that the body is possessed by the self; as well as a pregnant body constituted as two separate and competing entities. Lastly, the literature suggests that these dichotomies between the body and the social/self, are never complete. Thus we experience shifts in modes of embodiment between *being* and *having* a body. By examining the relevant social semiotic forms of biomedical discourse that naturalize the body as an asocial object, I will bring the critical insights of these literatures to bear on my analysis and interpretation of these medical interview texts.

Language as Social Semiotic

As a way of analyzing these medical interviews for the collaborative ways in which members' language practices produce representations of the pregnant body, I will be arguing that social semiotics provides both a theoretical and methodological framework for the study of language use. In contrast to formal linguistics and formal semiotics, social

semiotics, as its name suggests, emphasizes the social dimension - the processes through which meanings are made and how they function strategically in concrete contexts.

Jay Lemke (1990:183-192), in his work on scientific discourse in the classroom, suggests that social semiotics is a theory of how people make meanings. The basic assumption is that something does not merely *have* meaning, but that meanings are made according to socially acceptable conventions. We use semiotic resources, such things as language, movement, dress, depiction, and architecture in patterned ways that make sense to others in our community; that is, we make meanings that are socially significant because of the shared and habitual ways of making meanings in a particular context within a given community. Actions are made meaningful then because of the relations we construct between an action and the various contexts to which it is connected.

These contexts include the context of the utterance within the speech act itself; the context of situation regarding the events and participants; and also the broader context of the community or culture. These contexts can be understood in relation to the action in a number of ways. First, a syntagmatic relation: the relation of an action as a part of a whole; thus its place within a sequence - a word in a sentence, an action within a sequence of actions. Second, a paradigmatic relation: the relation of what was said or done to what might have been said and done but wasn't. And third, indexical relations: the way in which a particular action systematically indexes or points to for example, who speaks to whom, how, when and where.

The goal, then, of social semiotics research is to analyze these contextualizing relations and look at how and for what purposes people use the semiotic resources of their

community. Thus social semiotics is concerned with a number of aspects: first, with signifying practices, with what we say and do, and how we do it - that is, how we make meanings; second, with how these practices operate within the immediate context of situation as social norms and ideologies; and finally, to look beyond the immediate context of situation to the wider social consequences of these patterned ways of saying, doing and being; to understand why some things are said and done in certain contexts, while others are not. Lemke (1987:228) argues that by examining the patterns of social relations and the distribution of resources and power to organize and make sense of our world, this type of analysis reveals how social systems are maintained and transformed through the myriad of social actions that constitute them day to day .

In light of my critique of a realist epistemology of the body and by framing my analysis of language practices within a social semiotic tradition, I hold a number of assumptions regarding language and the biomedical model. First, that the biomedical model that emerged by the 19th century was part of what Foucault has referred to as an epistemic shift from the classical to the modern episteme; a conceptual shift whose a priori foundations were grounded by an empirical Enlightenment philosophy. Thus despite the epistemological divisions between the natural and social sciences, what they share in common is 'Man', both as an individual object and effect of their respective fields of knowledge, and as a knowing subject (Cousins and Hussain, 1984). Following from that is the assumption that language is not transparent but is constitutive of objects of knowledge, concepts and theories, as well as the subjects spoken by discourse (Foucault, 1972). The biomedical model may be thought of more broadly then as a discursive or

semiotic formation, the objects, concepts, strategies and theories of which are spoken with regularity across our social, economic, and political institutions. Within the context of western culture, a biomedical model is one of the cultural metanarratives that we daily live. And the specific institutional context of medical interviews are situated instances of how we use the semiotic resources of our meaning systems to realize, sustain and modify the assumptions of our context of culture. Thus we draw on culturally sanctioned systems of meaning even as we negotiate them in local settings through moment to moment interaction.

But in order to analyze how representations of the pregnant body are realized in social texts, and examine the innovations and variations that are constitutive of making new meanings and changing the system, I require specific theories of language and a set of micro-analytical tools that I can apply to the interpretation of these texts. Michael Halliday's (1985) *Systemic Functional Grammar* which traces its line of development from Malinowski, J.R. Firth, and the Prague School, is a theory of language that takes the social text as a semantic unit. And in starting from a theory of language as a system of meanings, Halliday argues that grammar as a system of choices is the means in and through which meanings are realized. Consequently, his theory of grammar has a different orientation to language than that of mainstream linguistic theory.

While there are a range of different approaches to analyzing language practices in the medical interviewing literature, Systemic Functional Grammar has not been used to interpret medical interviewing texts. In arguing for SFG as a method of discourse analysis, I will do so by way of contrasting it with two broad analytic approaches that predominate

in the medical interviewing literature: conversation analysis and sociolinguistics. In briefly reviewing this work, I will suggest that while both traditions provide important insights into the analysis of institutional talk, there are limitations that prevent a more extended critique of a biomedical model. In contrast, Halliday's SFG provides me with a theory of grammar and set of micro-analytical tools that will allow me to address my research questions.

As I suggested in Chapter One, the medical interviewing literature subsumes a variety of theoretical assumptions about language that result in both differences of research design, and in the basic unit taken as the phenomenon of analysis (Freeman, 1987; West and Frankel, 1991; Torode, 1989). Despite these differences, however, most share an orientation to understanding talk as contributing to the ongoing work of reproducing the social system. The perspective they share in common is an understanding of talk as social action. In attempting to bridge the gap between macro and micro level sociological theories and analysis, language is conceived as the critical link between the structure and organization of medicine and its concrete realization at the level of health care delivery (Fisher and Todd, 1983:10-11; 1986; Mishler, 1984; Cicourel, 1983, 1987; Silverman, 1987; Freeman, 1987).

While it may be difficult to characterize the medical interview literature, both Freeman (1987) and West and Frankel (1991) point to two broad approaches: those interested in interactional sequencing of talk such as conversation analysis; and those with a thematic orientation to the analysis of discourse as in the tradition of sociolinguistics. Both approaches use tape recorded and transcribed data, and provide examples of their

data as instances of the phenomenon they study. And both are also interested in the sociocognitive processes which members display interactionally, either in the collaboration of turn taking organization (CA); or in the display of practical reasoning realized in discourse (sociolinguistics). What they have in common is an interest in examining and displaying the asymmetry of the medical interview and how this functions to produce conventional social identities and relations that hierarchically organize the experience of the medical interview and potentially produce 'misunderstandings' between participants (Fisher and Groce, 1990). In doing so, they foreground the medical interview as a set of social and cultural practices: diagnosis, treatment and health status are not simply pre-given entities, but they are negotiated through the asymmetrical distribution of resources available to doctors and patients. While conversation analysis focuses on the asymmetry of interactional resources in turn taking (cf. Frankel, 1984; 1990; West, 1984; Fisher and Groce, 1990), sociolinguistics tends to focus on the asymmetry of expert or formal knowledge (cf. Cicourel, 1983; 1987; Hughes, 1983; Tannen and Wallat, 1982; 1986; Fisher, 1986; Todd, 1989; Mishler, 1984).

Talking Social Structure: Interactional Asymmetry in the Medical Interview

The work of conversation analysts is extremely insightful for the detailed analysis of the temporal and sequential organization of turn taking in 'ordinary' conversation and institutional talk. A form of ethnomethodology, conversation analysis (CA) is concerned with how the orderly features of situated talk are displayed and accomplished through the interactive work of members' accountability practices (Heritage and Goodwin, 1990; Boden and Zimmerman, 1991). Boden and Zimmerman (1991:10) stress that mutual

understanding is not merely dependent on the symbolic coding of shared meanings but is interactively accomplished through the resources for sequential action. One of the strengths of conversation analysis is that it challenges conventional understandings of social structure. The notion of "talking social structure" suggests that social structure is not an aggregate level phenomenon that determines or causes social action. Rather, the formal mechanisms of conversation that organize our social actions, and produce normatively oriented to situated discourse identities and social relationships enable the production of social structure (Boden and Zimmerman, 1991; Fisher and Groce, 1990)

Interest in the sequential organization of talk in medical interviews takes its starting point from the work of Sacks, Schlegoff and Jefferson (1974) on the procedural rules for the organization of turn taking. Through the study of mundane conversation, Sacks et al (1974) draw attention to certain features of talk: the temporal ordering of talk through an invariant set of ordered options for speaker exchange that is both context free and context sensitive; and the sequential ordering and fit of turn type and turn location which implies that any utterance is both context shaped by previous utterances and context renewing for subsequent discourse (Frankel, 1984, 1990) This notion of sequential implicativeness foregrounds a dynamic notion of context, action and interpretation stressing the interactive processes of talk and the hearer/recipient as an active participant in shaping and modifying the course of local action (Heritage et al , 1990; Boden and Zimmerman, 1991).

The important aspect about ordinary conversation is that despite the constraints of sequential ordering with respect to turn location and turn type, they are not pre-selectively

tied to speaker identity. In a provisional sense, a speaker may occupy any number of turn types and locations through which discourse is progressed across a speaker exchange system (Frankel, 1990). In a conversational genre then, any participant has similar opportunities for initiating a question and answer sequence, or when positioned as respondent to hold the floor and expand their turn length through a narrative account.

While the formal procedural rules for the organization of turn taking are taken as the point of departure for institutional talk, institutional settings are investigated for the distribution and density of particular sequencing of turn organization, such as question and answers, their relation to speaker identity and their strategic function in a situated context (Frankel, 1984; 1990; West, 1984; 1990; Paget, 1983; Fisher and Groce, 1990; Boden and Zimmerman, 1991). Furthermore, features of turn taking violations such as simultaneous talk (overlaps, interruptions) and gaps or silences are investigated with respect to their repair and resolution and the effect of that on subsequent discourse (Frankel, 1990; West, 1984). These researchers argue that the particular configuration of formal conversational mechanisms and their respective prevalence to the social identities of participants in a situated social context demonstrate that not all resources are equally available.

One of the main interactional features of the medical interview is the adjacency pair of question and answer sequence - physicians ask questions and patients respond thus setting up an asymmetrical activity structure. And while this may seem rather obvious in a service encounter whereby one participant seeks out the advice of an 'expert' concerning a problem, questions set up sequential patterns of talk that can function strategically as a resource for controlling the flow of information, topics and sequencing patterns

(Frankel, 1984; 1990; West, 1984; Mishler, 1984; Fisher and Groce, 1990; Paget, 1983). As Frankel (1984; 1990) argues, adjacency pairs such as question and answers operate as formatting devices that structure how discourse progresses across speaker exchange boundaries and utterance construction type. When speaker type and turn type/location are fixed, it imposes a set of speaker and hearer obligations and rights in relation to temporal and sequential ordering - what Frankel (1990) has referred to as a "deference structure". These structures operate as limits and constraints on utterance construction type and location and its relation to speaker type. Doctors who initiate questions control the flow of discourse development, while patients who respond are structurally limited in how and when they offer information to the floor.

In institutionally situated contexts where one speaker is structurally positioned to ask questions at least two interactional problems have been identified for respondents. These identified problems demonstrate the analytic focus of conversation analysis. First, if responses to direct questions are the predominant way in which information is offered to the floor, how do patients offer information that is not directly requested? Patients most often append additional information onto a response to a question (Frankel, 1990, Fisher and Groce, 1990). But in looking at how physicians respond to this information both Frankel (1990) and Fisher and Groce (1990) demonstrate how physicians are under no obligation to acknowledge this appended information. Through the use of a third pair part in follow up to a question and answer sequence, physicians can selectively attend to or ignore additional information. The tendency is to ignore social, while attending to medical, information (Fisher et al, 1990; Mishler, 1984; Drass, 1988). While deference

structure is conceived as an activity structure whereby participants learn structurally when to offer information, it also operates to learn selectively what kind of information is relevant (Mishler, 1984).

Patients also use boundary markers as a strategy for inserting patient initiated utterances (Frankel, 1990; 1984). When physicians signal a transition to a different sequence or phase by soliciting a last call for information or announcing a shift, patients take those opportunities to add further information. But as Frankel argues, while it provides a solution to an interactional problem, it also demonstrates an orientation to a set of conditions for the use of direct questions as a method for offering information. It thereby preserves speaker type/turn type affiliation and interactional structure.

The second interactional problem of respondents relates to the issue of mutual intelligibility. West (1984) argues that while the interview is asymmetrical in terms of direct questions and answers, it is necessary to look at how parties administer resources to resolve problems of intelligibility, for failure to address problems of mutual intelligibility have implications for diagnosis, treatment and potential malpractice. If direct questions are a conventional way to ensure mutual intelligibility, yet patients are structurally positioned as respondents, what resources do patients employ to ensure intelligibility in the development of discourse ?

West argues that while direct questions are forward looking resources initiating a sequence, there are a group of question-like utterances symmetrically available to both parties that are conditionally reliant on prior utterances and thus they are backward looking. She identifies requests for confirmation - a tag question appended to a statement,

as a site for potential problem when patients fail to confirm or ratify a physician's request. Given that direct disagreement is often mitigated (West, 1990; Maynard, 1991), silence and failure to ratify a request for confirmation may function as a way for patients to express misgiving. These should be looked upon as important sites for mishearing or misunderstanding that have consequences for subsequent talk of diagnosis and treatment (West, 1984).

The strength of conversation analysis in foregrounding verbal context and sociocognitive processes of members turn by turn display of sense making procedures overshadows, however, more extended notions of context. Tony Hak (1992), working within the tradition of CA, argues that the notion of context in CA may be too narrowly defined. While the main focus is on members display of practical reasoning as it is mutually available to all participants in face to face interaction, he argues that members may at the same time be oriented in their practices to extra-local considerations. For example a physician's displayed practices are at the same time oriented to accountable reporting practices and to the standards of colleagues' judgements. He argues that the corpus of knowledge should not only include face to face interaction but should be extended to include written records dealing with the case at hand. What he is suggesting then is that an analysis of talk includes not only that of temporal and sequential organization of interaction, but should involve an analysis of representational practices.

If Hak's work extends context to other social texts inferring an intertextual relation with other knowledge forms, then Paul ten Have's (1989; 1991) work on the medical consultation as genre extends context to higher order levels of the sequential organization

of talk in face to face interaction. ten Have (1991), also working within the CA tradition, argues that one should not presume the asymmetry of question and answer sequences in medical interviews. Different activity structures operate throughout the consultation, first on the basis of sequentially organized phases such as the history, the examination, the diagnosis and treatment options (ten Have, 1991; Drass, 1988); and second, through the convergence of different genre types within the medical interview (ten Have, 1989). The feature of attending to "self-experienced trouble" is common to the medical consultation, to conversational genre of troubles telling and to the genre of therapy, each with their own activity structure, set of situated discourse identities, and social relationships (ten Have, 1989; Jefferson and Lee, 1981). Thus sequential implicativeness can not only be understood in relation to turn by turn organization, but rather it is context dependent on higher order levels of sequential organization (Fairclough, 1992a). A member's sociocognitive competency and displayed understanding of a prior utterance must attend to both micro level features of turn organization and macro level genre and discourse features. As Fairclough (1992a) argues this is particularly important given that the medical interview can no longer be regarded as an idealized sequential type, but as a mixture of both conversational genre, therapy genre and medical consultation genre.

What these critiques have in common is that they allude to the extra-local or higher order levels of organization and systems of meaning to which any member is oriented to at the level of local interactive practice. Any local interactive order is always embedded in a range of higher order level features that constrain and enable the negotiation of face to face interaction. In taking sequential and temporal ordering as the

object of its inquiry, CA has focused on the moment to moment production of discourse that displays aspects of power and control of discourse organization. Within a social semiotic perspective, however, this is but one of several dimensions of the interpersonal metafunction that are constitutive of social identities and social relations. Furthermore, in focusing primarily on sequential interaction, CA fails to examine the representational function of language as a system of meaning with structures of knowledge that are a dimension of social action (Williams, 1992:168).

Thus, conversation analysis draws on the content of what is being said as evidence for how members display their accountability for temporal and sequential turn organization, but without a theory of language as a system. If, as I have argued, my research interests are in the conceptual and representational practices that produce a biomedical model of a body dissociated from the social and the self, this lack of systematic theory or analysis of the representational function of language is a major limitation in using CA as a method of discourse analysis. It fails to address how social identities constituted through linguistic resources are attached in patterned ways to forms of representation, structures of knowledge in and through which the biomedical model is embedded. One is left with an uneasy sense that if interaction patterns were simply more 'symmetrical', the structures of knowledge that ground diagnosis and disease categories would still remain unchallenged (Mishler, 1984).

Asymmetry of 'Expert' Knowledge

In contrast to the analysis of turn taking interaction within the tradition of CA, a second broad approach to medical interviewing is oriented toward the thematic

organization of talk (Freeman, 1987; West and Frankel, 1991). Sociolinguistics subsumes a broad field of theoretical and methodological approaches among linguists, sociologists and anthropologists with an interest in the relation between language and social structure (Wardhaugh, 1992; Williams, 1992). With the exception of Tannen and Waiet (1983; 1986), most research on medical interviewing has been done by sociologists (cf. Mishler, 1984; Cicourel, 1983; 1987; Fisher and Todd, 1983; 1986). While many of these authors are attentive to the question and answer ritual that structures the medical interview, they argue that interaction is also negotiated on the basis of representational strategies encoded in discourse (Fisher, 1983; Fisher and Todd, 1986). An analysis of discourse may be revealing of both cognitive processes (cf. Cicourel, 1983; 1987; Tannen and Waiet, 1982; 1986; Mishler, 1984; Hughes, 1983) and the relation between macro level organizational and structural features of a given environment and their realization at the level of face to face interaction (cf. Fisher, 1986; Todd, 1989; Cicourel, 1987; Silverman, 1987; Davis, 1988).

Those working within the tradition of sociolinguistics are oriented to placing the asymmetry of the medical interview in an extended context that takes account of both the organizational and bureaucratic features of an institutional order, as well as the structural features of the sociocultural context. At the organizational level of a bureaucratic professional setting, policies and formal expert knowledge organize the relation among various local sites of knowledge production and the hierarchy of relations among medical personnel (ie the lab, x-ray, teaching rounds, intern, resident, specialist). These institutional features in turn organize face to face interaction of a medical encounter

wherein the institutional goal of diagnosis and treatment of a problem is both an orientation to, and an accomplishment of, real-time constraints (Cicourel, 1987; Fisher, 1983).

Cicourel (1983) argues that the bureaucratic setting of the medical encounter makes different and specific demands on the information processing abilities of participants. In looking at the relation between discourse and cognitive processes, Cicourel argues the medical encounter is an interaction between two different registers or semantic domains which are realized in different syntactic forms. These different registers represent different modes of thinking or forms of "literacy". The formal literacy and hypothesis testing mode of the physician interacts at a local level with a patient's semi-closed system of beliefs that can be resistant to modification.

The physician's clinical reasoning and hypothesis testing is an intertextual process wherein schematic mental models drawn from formal/expert knowledge interact and process local contingent knowledge in the medical interview. Schematic knowledge acquired through both formal written texts and informal social texts such as teaching rounds enable a rational problem solving mode which integrates local information hierarchically into consistent and coherently organized knowledge forms (Cicourel, 1983; 1987). Patient information is thus abstractly recoded into a symbolic system that minimizes the emotional and sociocultural understandings of the problem, and one to which patients generally don't have access. Yet as Tannen and Wallat (1982) note, physicians have competency in switching between different registers to realize different goals for different audiences. It is this differential access to symbolic codes which

Cicourel (1983: 238) suggests is at the heart of asymmetrical communicative power (see also Mishler, 1984; Hughes, 1983). Furthermore, physicians' ability to shift more easily between different codes places the burden of asymmetry on the physician to translate between them (Mishler, 1984:172).

Face to face interaction, however, is also structured by the bureaucratic knowledge base, memory and language limitations a patient brings to a medical encounter, which in turn help to create, sustain or transform the belief systems of patients (Cicourel, 1983; Silverman, 1987). Longitudinal studies that follow a particular patient either across different contexts and different health personnel (Tannen and Wallerstein, 1986) or through repeat medical interviews (Cicourel, 1983) suggest that a patient's syntactic register reveals a different reasoning process. Cicourel has characterized beliefs as a reverberating semi-closed system in which reasoning, emotions and value laden goals may be resistant to modification. While new meanings are locally created and negotiated in a medical encounter, they may not outlive local interaction; rather, cognitive schemas with their associated assumptions and habits may outlast the negotiation of meaning (Tannen et al, 1986; Cicourel, 1983). Thus new information, rather than being integrated into a coherent and hierarchical knowledge form, may be selectively fit. Consequently, belief systems may hold contradictory and incompatible beliefs.

As an analytic concept, register has been used by these researchers to suggest that physicians and patients' speech are constituted by a different discourse semantics, and that these in turn are realized in different syntactic forms. This notion of register refers to the representational and logical structures of language. A very different notion of register is

found within Systemic Functional Grammar. It combines what Halliday (1978; 1985) suggests are the three metafunctions of language: not only the representational, but also the interpersonal and the textual metafunctions of language. I will return to this more elaborated notion of register in my discussion of social semiotics and Systemic Functional Grammar.

Researchers emphasizing the structural level of an extended context investigate how broader sociocultural assumptions and systems of social stratification both organize and are realized in the medical encounter. The effects of gender difference on the interaction of the medical encounter have been the focus of a number of studies (Fisher, 1983; 1986; Fisher and Todd, 1986; Todd, 1989; Davis, 1988; Fisher, 1991; Fisher and Groce, 1990). Fisher (1983) argues the asymmetry of the interaction in the outcome of treatment decisions increases when women are perceived as poor, powerless and fail to display competency with respect to knowledge of their condition. In the discussion of treatment options, physicians use a variety of representational styles to influence the negotiation of a treatment decision. In some instances they may use a 'soft sell' approach suggesting what the "usual" course of treatment is. In other cases, persuasional strategies are used to specify how a treatment decision should be understood (Fisher, 1983). Fisher and Todd (1986) argue the selective use of scientific information and authority used to persuade women to take oral contraceptives is based on physicians' moral judgements about appropriate gender roles. Furthermore, Kathy Davis (1988) suggests that paternalism is a regular feature of the medical interview. Advice is constructed to appear benevolent,

and yet in ignoring patient concerns and covering over their inability to deal with a problem, physicians' benevolent advice simultaneously operates to control women.

Researchers within a sociolinguistic tradition contribute to an understanding of how the extended organizational and structural context organizes face to face interaction. Yet they vary widely in their analytic concepts and in the interpretive practices used to analyze linguistic data. Many provide only a running commentary on the text rather than a specific linguistic analysis (cf. Fisher, 1983; 1986; Fisher and Todd, 1986; Todd, 1989). More notably, Tannen and Wallat (1982; 1986) and Cicourel (1983; 1987) refer to different semantic domains realized through different syntactic structures; they don't, however, elaborate on their analytic and interpretive linguistic practices. Furthermore, their more limited notion of register is embedded in a broader linguistic tradition which shares a view of language and the structure of grammar as realizing only the representational function of language (Poynton, 1990).

Mishler's (1984) work is an exception in that he draws on Halliday's social semiotic theory of language. His principle research interest is directed towards how coherence is achieved in the medical interview between different voices or structures of meaning. The voice of the lifeworld refers to grammatical features that emphasize the temporal and causal contingencies of a person centred account. In contrast, the voice of medicine is structured by grammatical features that classify symptoms but ignore the temporal and causally related features. He suggests that in the struggle between these two voices, a superficial coherence is usually imposed through the question and answer ritual that physician's control. Alternatively, a deeper level of coherence in which the voice of

medicine attends to the voice of the lifeworld may be achieved through grammatical and cohesive devices in which both physicians and patients participate.

But his analysis is limited because he does not specifically use Systemic Functional Grammar as a method of discourse analysis for either the ideational or interpersonal metafunctions of language. This lack of a systematic analysis is also evident in the work of others who subsequently draw upon or critique his concepts of the voice of medicine and the lifeworld (cf. Fisher et al., 1990; Drass, 1988; Fisher, 1991). Furthermore, Mishler fails to address how the voice of the lifeworld in its association with the phenomenologically based concept "the natural attitude" is saturated with scientific and medical meanings, and as Fisher (1991) has argued, how the voice of medicine draws upon discourses of the 'social'. Thus, he fails to acknowledge how the biomedical model of the body is analytically prior to the medical encounter, and that the medical interview is merely another site that draws upon and sustains or transforms those cultural narratives.

While many researchers oriented towards a thematic analysis direct their efforts toward bridging the gap between macro and micro levels, their linguistic theories fail to do so completely. This is most evident in how they conceive of context. While they suggest that the extended context organizes and is realized in the text, their notion of context remains external to language itself. No systematic linguistic theory or analytic concepts are provided that indicate what analytic and interpretive practices could be utilized to demonstrate how context is internal to, and realized in, the organization of language. Norman Fairclough (1992a) has argued that within the broader sociolinguistic tradition, social stratification remains a surface feature which explains the syntactic

structure of language. Despite a focus on language as a means by which to redress the reified notion of social structure, without a more extensive theory of the relation between language and social structure, more conventional notions of social structure still prevail.

These two broad methods of discourse analysis found in the medical interview literature focus on the medical interview as a set of social and cultural practices. And in doing so, they begin to challenge the biomedical model and conventional sociological understandings of action and social structure. Yet arguably, neither approach directly challenges the conceptual conventions of a biomedical model that naturalize the body as a physical entity outside the social, and dissociated from the self. Studies do draw attention to the emotional aspects of people's health (Fisher, 1991; Mishler, 1984; Paget, 1983; Cicourel, 1983; Davis, 1988, Drass, 1988), and conversation analysis emphasizes the constitutive nature of social identities through activity structures, yet without more specifically addressing the problems of a realist epistemology of the body, these approaches remain formulated within a biopscho-social model of health and illness, body and self, the problems of which I have previously outlined. Their limitations in addressing the biomedical model can be traced first, to an absence in addressing representations of the body; and second, to an absence of a linguistic theory equal to the task of analyzing how the hegemony of a biomedical model is organized and realized through the resources of the linguistic system. Neither tradition then has the micro-analytical tools necessary to address my research questions. Consequently, I have used a third method of discourse analysis, Systemic Functional Grammar, previously unused in the medical interview literature, to analyze these texts for my research interests.

Text/Context: A Systemic Functional Theory of Language

A social semiotic analysis of language takes as its starting point certain fundamental assumptions about the relation between meaning and form that contrast with mainstream linguistics and semiotics. Traditionally in linguistics, the sentence, as the object of analysis, has been isolated from its meaning in a social context of use. The emphasis, rather, has been on form - the grammar - as the foundation of language. With grammar taken as the starting point, language is conceived syntagmatically in terms of the formal relations that adhere between structures of language. And the relation between grammar and meaning is considered arbitrary (Halliday, 1985: xxviii). The predominant view of language then is that of a conduit metaphor in which language is expression - a form or container to which meanings are arbitrarily attached (Poynton, 1990, Threadgold, 1988a; Weir, 1993).

This emphasis on form at the expense of meaning takes its point of departure from the Saussurean division between *langue* and *parole*. Saussure's notion of language was a break with enlightenment philosophy that viewed the individual subject as the source of rational thought with language as merely the means to convey it (Williams, 1992). In contrast, Saussure's understanding of language was one that was pre-eminently social. In making a distinction between *langue* and *parole*, he suggested that *langue* is the abstract linguistic system that we draw upon in any individual instance of language use (*parole*). However, rather than see these two aspects of language in a dialectical relation, he viewed this distinction in dichotomous terms valuing *langue* at the expense of *parole* (Poynton, 1990; Volosinov, 1986; Silverman, 1983).

Saussure's object of study was *langue*, the study of the system of signs. While a sign comprised both a *signified* (concept/meaning) and a *signifier* (sound-image), he argued the relation between them was arbitrary. Rather, the meaning of a sign was determined in its relation to the similarities and differences with other signs in the language system, and in its syntagmatic relation of difference to other elements in discourse (Silverman, 1983). *Langue* as a normative system of signs is therefore said to pre-exist the individual; and the individual variations that occur with speech acts, *parole*, are regarded as random and non-linguistic elements (Volosinov, 1986; Silverman, 1983; Poynton, 1990). As Halliday (1992:9) argues, le Saussure problematized the link between language as a system and any individual instance of it, *parole* for Saussure was simply evidence of the system, rather than a constitutive act of creating the system.

This dichotomy between *langue* and *parole*, or *system* and *process* has generally organized linguistic traditions in the 20th century. Language studies have come to embody these divisions by focusing either on *syntax* (grammatical structures) removed from its social function; or *pragmatics*, the individual variation of language use in context (Lemke, 1987; Poynton, 1990). Furthermore, the Chomskian reformulation of this division as competence/performance has resulted in a cognitivist orientation to language that has undermined the notion of language as a social resource (Poynton, 1990:238). As a consequence, the general tendency toward formal semiotic systems and formal linguistics has come to prevail in which a product is isolated from its function in concrete social contexts (Hodge and Kress, 1988).

Yet there are different ways to conceive of grammar and its relation to meaning which infer a different relation between system and process. Michael Halliday (1985) argues a systemic functional grammar reverses the direction and relation between form and meaning. Language is fundamentally semantic, a resource for making meanings which function in a social context. Consequently the text as a semantic unit is the fundamental unit of analysis. But as Halliday (1985:xvii-xviii) argues, meanings are realized in and through 'wordings' - grammatical patterns through which we interpret our world, and it is a relationship that he characterizes as "natural" or non-arbitrary. The semantic patterns that we use to actively interpret our world into processes (goings-on) and participants correspond with lexico-grammatical structures and their respective grammatical functions that have evolved in language to express these semantic components. As Halliday suggests then, the interpretation of a text as a semantic unit requires a theory of the linguistic system that lies behind it (1985; Halliday and Hasan, 1989).

If traditionally structure is the organizing concept of grammar, a systemic theory of language is organized around the notion of system-structure. Language, as a network of relations, constitutes a paradigmatic system of choice. The choices made from the network of options are realized in grammatical structures at the level of the clause complex. In this sense then a grammatical structure is the mechanism that reveals the choices made. A structural analysis situated within a systemic theory examines the patterns of grammatical choices built up across the text against the background of options available but not chosen. And the semantic patterns realized through grammatical

structures may then be interpreted in light of the relation between these patterns and the context of situation and context of culture (Halliday, 1985: xxxvii).

By reversing the relation between form and meaning, a functional rather than a formal grammar is the basis of language as a semantic system. Yet functional understandings of language have traditionally been restricted to the notion that language serves different uses in different social contexts. For example, language either represents its environment or does something, acting on its environment. While an "either/or" notion of language use may be appropriate to the proto-language stage of infants, Halliday argues that this fails to account for the multifunctional dimension of adult language (Halliday and Hasan, 1989:17; 1985; 1978).

A Systemic Functional theory of language is based on the notion that function is a fundamental property of language and is embedded in the organization of language at the level of the clause. Each clause simultaneously combines three semantic functions: the clause as an activity of representation; as an exchange, a means of acting on the environment; and as a message. These three semantic components of language, referred to as metafunctions, are woven into the clause and realized through different grammatical structures. The ideational metafunction refers to the representation of experience, the who, what, how and where of activities. At the lexico-grammatical level, it is realized through the transitivity system - the verbal processes, participant structures involved in these processes and the circumstances. The interpersonal metafunction expresses our stance or attitude as speakers towards the experience being represented and is realized through the mood system, modality and attitudinals. Lastly, the textual metafunction organizes the text

as a message so that it is relevant to the internal context, that is to what comes both before and after any linguistic unit in the text. This is realized both through theme, and lexical and grammatical cohesive devices.

As Halliday (1985:37) argues, there is not a particular linguistic item or segment that simply performs one function. It requires looking at the whole clause from different angles. A linguistic element is configuratively associated with other elements such that the particular function it performs is dependent on the specific grammatical structure that is being examined. Given that there are three different grammatical structures through which elements are configuratively associated, any given element is consequently multifunctional (Halliday, 1985:37).

While a Systemic Functional theory of language emphasizes language as a system of choice, of possibilities, it also accounts for the predictability of language. Drawing upon Malinowski's insights into the relation between language, the context of situation and context of culture, Hasan (1985) and Halliday and Hasan (1989) argue that we learn the signification and value of a linguistic unit, our semantic competence in a particular language, through systematic and regular use of a signified in a social context of use. However, while the relation between language and context may be self-evident in pragmatic contexts of language use, they argue that in order to account for the relation between language and context where the referential and pragmatic use of language is not transparent, we need to conceive of context not simply as a piece of extra-linguistic reality but as an abstract schematic construct.

Halliday has characterised the context of situation as comprising three components: the field, what is going on; tenor, the social status and relation of speakers and the social function for which speech exchange is carried out; and finally the mode, the part language is playing and the medium through which it is expressed, either written or spoken (1978; 1985; Halliday and Hasan, 1989). But Halliday also argues there is a systematic relationship between the components of the context of situation and the semantic components of the linguistic system. The field, tenor and mode are respectively realized through the semantic components of ideational, interpersonal and textual metafunctions which are in turn realized through their respective linguistic systems. The significance of this approach is that in systematically relating the components of the situational context to the semantic components in the text, context is conceived, not as external to language, but as realized in grammatical structures. This is one of the main features of a social semiotic understanding of language that differentiates it from other sociolinguistic theories of language.

Characterizing the relation between text and context in such a way enables us to account for the predictability of language. The configuration of field, tenor and mode in a context of situation enables us as language users to predict what meanings are likely to be exchanged. And conversely the semantic meanings realized in a text allow us to infer the context. The notion of register is used to suggest that a particular configuration of meanings is typically associated with a particular configuration of field, tenor and mode (Halliday and Hasan, 1989). Furthermore the notion of register enables us to infer certain kinds of relationships between texts that belong to the system of registers built up within

a language community. As Lemke (1985) argues texts that belong to the same register share similar linguistic features, share certain kinds of meanings and share a similar situational type according to the features of field, tenor and mode.

But as Lemke (1985) also points out, a system of registers separates texts from other texts; that is certain configurations of meaning are only associated systematically with certain situational contexts. This implies then a restriction or constraint in a particular situational type on the meanings that can be made from the total potential of our semiotic resources. The meanings not made constitute a gap in the use of language, and in the combination of how selections from one system can be combined with the selections from another system to make meanings. These gaps or missing registers constitute more broadly a potential resource for making new meanings. Lemke argues, however, they are not merely absent but are rendered invisible through the system of connections that are typically made and function socially to stabilize the meanings of a language community.

Very briefly then, there are a number of aspects that distinguish a Systemic Functional theory of language from mainstream linguistic theory. Given that meaning is not dissociated from form, the relation between langue and parole, system and process is differently configured. Halliday (1992) argues that as long as there is a disjuncture between language as a system and the text as instance of language use, the act of meaning as a source of power is obscured. To study the system in isolation from social texts does not reveal how the system is at work in the text; and conversely to study the text alone does not display the power of the system. When you bring both system and text together

the text is revealed for what it is, an act that has meaning because it is not *sui generis*; it is the actualizing of a potential, by means of processes that are patterned - and therefore, in an important sense, predictable. (Halliday, 1992:8)

But as Halliday (1992) argues, the text is not simply evidence of the system in Saussure's sense, but it is a constitutive act creating and changing the system. A social text can be thought of then as both a finished product and as a process. The text is a product in that the lexico-grammatical patterns are the realization of the linguistic system in a context dependent situation. But as an instantiation of a paradigmatic system of choice, the text is also a process realizing meaning potentials that in turn create the system. The relationship between system and process is not then a top-down relation, but rather productively conceived as dialectical: there is a constant interaction between an instance of language use - a text as process, and the system (Halliday and Hasan, 1989:10; Thibault, 1991:13).

Cate Poynton has captured this relationship by writing that

...one has to pay attention to *both* the system and its instantiation in particular contexts. Or one can look at the relation from the other direction (starting with parole), attending to actual instances of 'languageing' in the real world as *both* the only guarantee of the existence of any system *and* also as themselves affecting, and ultimately changing the system. (Poynton, 1990: 238)

Reconfiguring the relation between langue and parole, system and process, has implications for how we conceive of the interpersonal dimension of talk. Traditionally, linguistics has recognized only one type of grammatical structure - a constituency structure concerned with categories that encode the representational function of language. The expressive/emotive aspects of language, in contrast, have been regarded as unpredictable and non-systematic aspects of individual language use thereby relegating the interpersonal to parole, outside the linguistic system (Poynton, 1990). As Poynton

(1990) points out, this approach to the interpersonal is bound up with conventional notions of the individual.

Halliday's functional theory not only recognizes three metafunctions but three different types of grammatical structure to realize these functions. Consequently, the features of the interpersonal are systematically realized in the resources of the linguistic system. This has important implications for understanding the individual not as a rational unitary subject outside of discourse but as a subject socially constituted within meaning systems of language. The mood system, modality and attitudinals that realize the expressive/emotive features of the interpersonal and encode our beliefs, values and emotions are

a key semiotic resource for both producing structures of feeling experienced at the level of the individual, and also for attaching feelings to the socially available forms of interaction and forms of representation. (Poynton, 1990:238)

Lastly, the notions of register and system of registers distinguish which configuration of meanings are associated with particular social contexts in a given language community. These analytic concepts draw attention to the relations between texts, and the ideological function of constraining meanings made in social contexts of use. Register suggests a sense of global co-patterning of selections from linguistic systems realizing the ideational, interpersonal and textual metafunction that occur in specific combinations and situational contexts. Lemke (1985) stresses, however, that these global co-patterings occur more broadly across differing configurations of field, tenor and mode. All texts are built out of a language community's system of prior texts, and the intertextual relations between texts are more broadly configured around abstract thematic

systems and activity patterns realized in part through the resources of our language system. A common theme that stabilizes systems of meaning across a text and between texts is foregrounded through global co-patterning of selections from the semiotic systems of language, thematic and activity patterns. So for example, selections from the transitivity system, and selections from the mood system realizing interactional patterns may co-occur in patterns that support a particular thematic system of meanings. It is on the basis of these foregrounded co-patterning that connections between texts are made and constraints on what we can mean are enacted.

In turning to the task of analyzing these medical interview texts, I will be using SFG a method of discourse analysis. The critical literature on the body has suggested that the modern body has been naturalized as a physical object, outside of history, representation and the social. Furthermore, as representational practices, the inscription of the biomedical model has become one of the predominant modes through which we live our bodies, as a self dissociated from the body. The notion of a self dissociated from and loosely possessing a body, with the corollary that this corporeality is never completely contained by the inscriptions of modern medicine are important aspects to retain as I consider how women's experience of normal pregnancy is produced in negotiated interaction with their health practitioner. If, as Duden (1991; 1993) argues, the unidimensional language of science and medicine have flattened our bodily perceptions; and the concentration of medical management has effectively disembodied women's experience of pregnancy, what are the patterned modes of interaction and ways of talking that produce a self dissociated from a body? And if there are different modes of bodily

perception, if women create different ways of making meaning that indicate the limitations of biomedical systems of classification, how are these realized in interactive speech patterns?

My analysis will not simply be an exegesis or running commentary on these texts of how women talk about pregnancy. Rather, SFG as a method of discourse analysis will allow me to systematically examine the linguistic patterns interactionally built up across the text and relate them to the situational and cultural context of a biomedical model. In Chapter Three, I will focus on the ideational metafunction, the representational function of language. I will look at transitivity patterns and ergative structure. What I will demonstrate with my analysis is the importance of action and behavioral processes as forms for the social semiotic transmission of the biomedical model, of a body dissociated from the social and from the self. In Chapter Four, I will focus on the interpersonal metafunction of language. My examination of mood choice, modality, and personal deixis will indicate the unevenness of social agency among physicians and women, and the importance of modality in both normalizing pregnancy, as well as dealing with the uncertainty of a body that defies medical systems of classification.

CHAPTER THREE

DIS/EMBODYING THE PREGNANT SUBJECT: TRANSITIVITY PATTERNS AND ERGATIVE STRUCTURE IN THE MEDICAL INTERVIEW

The medical interview genre of normal pregnancy, a higher order semiotic system organizing social activity, is constituted by the semiotic system of register, the particular semantic configurations of field, tenor and mode that are organized throughout the interview. Genre and register, as both higher level semiotic systems, are in turn partially realized through language: at the level of discourse, the construction of the text through turn taking, turn length and speech functions; and at the lexico-grammatical level of the clause (Poynton, 1989).

In this first analytic chapter, I will begin with the ideational metafunction of language manifesting the registerial component of field. More specifically, the ideational will be analyzed as it is realized through the transitivity system of language at the lexico-grammatical level. An analysis of the interpersonal metafunction realizing the registerial component of tenor will be the focus of the next analytic chapter. The analysis of the interpersonal will focus on the mood system, modality/modulation, and personal deixis at the lexico-grammatical level as well as the social activity structure at the level of discourse. While each metafunction realizing a component of register has its own grammatical structure from which to proceed with an analysis and interpretation of meaning-making in language, as Poynton (1993:14) points out, these metafunctions are profoundly interdependent. Consequently, my final chapter of analysis and interpretation

will re-examine the co-patternings of linguistic choices realizing the ideational and interpersonal metafunctions. Looking at the positioning of subjects within shifting forms of representation and situated discourse identities will enable us to examine the formation of social subjectivity constituted within, and in resistance to, the discursive hegemony of a biomedical model.

As I outlined in my previous chapter, the modern body of biomedicine has been conceived within a realist epistemology. The conceptual and representational practices of the biosciences have constructed the body as physical object of law-like phenomenon that 'exists' outside systems of representation. But as the critical literature on the body points out, the inscription of the body within biomedical systems of meaning has consequences for how the body is 'lived'. The pregnant body then, as a biological body, has been construed as asocial, and as a consequence inscribed and lived as a body dissociated from the self. However, as a body never completely contained by the inscriptions of modern medicine, women subjectively experience pregnancy as a shift between modes of being embodied and disembodied.

In order to analyze representations of the pregnant body, seventeen interviews were taped and transcribed. From the nine medical and eight midwifery interviews collected, five medical interviews were chosen for analysis. Four of these interviews were between 10 - 12 minutes long, while a fifth one was 7 minutes. The transcription conventions which emphasize the sequential organization of talk in the medical interview are found in Appendix B, while the full transcripts of these interviews are found in Appendix C

In turning now to an analysis of the representational function of language, I will begin with the ideational metafunction.

Language as Representation: The Ideational Metafunction

The ideational metafunction within SFG is generally referred to as representing the "goings-on" in the world at the level of the clause (Halliday, 1985:101; van Leeuwen, 1988:1). Our experiences, that is, how we participate in the world around us, are organized and represented in language through three semantic components: a process (a doing, happening, feeling, thinking, or being); participants in the process; and circumstances associated with the process, an optional third component. These semantic components are then realized through linguistic structures in which, typically, processes are realized by verbal groups, participants through nominal groups, and circumstances through adverbial groups or prepositional phrases (Halliday, 1985:101-102). These are, so to speak, the congruent linguistic forms through which processes and participants are realized. Our experiences then, the semiotic processes of doing, happening, being, and feeling in and through which we are continuously involved in meaning-making practices, are analyzed and further transformed as they are represented in the semiotic resources of our language system.

The transitivity system of the English language is that aspect of the linguistic system through which we can analyze processes and participants realized in language at the level of the clause. Traditionally, the transitivity system has been used to distinguish between two different types of verbal processes: transitive and intransitive processes. While each process has an actor which functions as the 'doer' of the process, some

processes (transitive) have a second participant - a goal to which the process is extended, sometimes referred to as 'patient' meaning that which is acted upon by the process. By contrast, intransitive processes do not extend to another entity. So for example in these medical interview texts, transitive and intransitive clauses are represented respectively by such clauses as:

Text A 90 b (ii) They are gonna take the baby

Text D 54 b (i) I have to sit down

In the case of the transitive clause (Text A), *they* represents doctors as the 'doers' of an action *take*, while *the baby* is the patient, the entity to which the process is extended. In the intransitive clause (Text D), *I* is the actor of the process *sit* which does not extend to another entity.

Transitive clauses in turn have a further option to be represented in either the active or passive voice. For example, the transitive clause in Text A is realized in the active voice: the actor of the process *they* is grammatically realized as the subject of the clause. However, if we were to represent this clause in the passive voice it would become

Ex: The baby is gonna be taken by them

Ex: The baby is gonna be taken

The first example illustrates how the patient role becomes the grammatical subject of the clause, while the actor becomes a circumstantial element. And in the second example, the actor as a circumstantial element is no longer structurally represented. Consequently, *who* does the *taking* is absent. Within the framework of SFG, however, Halliday (1985) suggests that the transitivity system encompasses process types with a greater range of grammatical structure than accounted for within a more traditional notion of transitivity.

2

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
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It is to this more extended notion of the transitivity system at the clausal level to which I will now turn for an analysis of the ideational metafunction

Transitivity System

Having situated my analysis of medical interviews broadly within the tradition of Systemic Functional Grammar, more specifically my analysis of transitivity will draw on Michael Gregory's (1982) action, mental and relational process types and participant roles modified with the addition of behavioral, action causative, and relational circumstances and intensive (internal relations) process types taken from Halliday (1985: 119-120, 128, 1988: 173). As Halliday (1985) argues, different participant roles grammatically are associated with different process types. There are some broad distinctions among processes realized through their grammatical structures. The general process types that I will use (action, mental, behavioral, and relational) are outlined in Table 3.1 along with sub-types within each category and their participant roles. While action processes most closely relate to the traditional notion of transitivity in which a process either does or does not extend to a goal, there are sufficient differences both among these action processes with respect to participant roles, and between action processes and other predication types (mental, relational, behavioral) such that they warrant a more extended analysis of their function and participant roles.

Any "goings-on", that is, 'who does what to whom, where and when', may of course be represented in a variety of different ways. The transitivity system as a paradigmatic system of choice is responsive to this, allowing us to represent a given semantic process through potentially different grammatical structures. And while these

Table 3.1

PREDICATIONAL TYPES

ACTION :

Affective	Dr. Jones <u>delivered</u> Sandy
Resultative	We <u>made</u> a crib for the baby
Motion	The VON <u>comes</u> a couple of times a day
Transfer	I can't <u>carry</u> the two of them
Designation	Susan <u>took</u> your blood pressure
Causative*	We'll <u>have</u> you see Dr. Smith

Participant roles associated with action processes: actor, initiator, instrument, means, patient, resultant, beneficiary and recipient, range, locative - spatial and temporal.

BEHAVIORAL* The baby will survive Participant role: behavior

MENTAL:

Perception	I'll <u>listen</u> to the baby
Cognition	You <u>know</u> him
Reaction	You <u>want</u> the birthing room

Participant roles: processer and phenomenon

Verbal: They said her pelvis was too small

Participant roles: sayer, recipient, target/verbiage

RELATIONAL:

Attributive	This baby <u>is</u> big	Roles:	item/attribute
Classificatory	It <u>is</u> a breach		classified/classifier
Identificatory	The head <u>is</u> the biggest part		identified/Identifier
Locational	The head <u>is</u> down there		located/locater
Possessive	You <u>have</u> a bit of tension		possessor/possessed
Circumstantial*	It <u>depends</u> on the position of the baby		
Existential	There <u>is</u> an early discharge program		
Intensive*	The test <u>shows</u> you are not a diabetic		
(Internal Relations)			
Ambient	It's <u>raining</u>		

Adapted from Young (1993): Process types based on Gregory (1982).

* Process types taken from Halliday (1985:119-120, 128; 1988: 173).

choices are not for the most part consciously inscribed at the lexico-grammatical level. the systematic grammatical patterns of 'who does what to whom' as specified by the participant roles of the clause reveal patterns for culturally appropriate relationships between people, and between people and things (Poynton, 1993:7). Thus the transitivity system of grammar provides us with an analytical tool for analyzing how language as a material force ideologically organizes social relations and ways of understanding our world. The goal of a transitivity analysis is then to examine each clause with respect to different process types, and build up a systematic picture of the processes and participant roles across the text.

Ergative Structure

In tandem, however, with a transitivity analysis is an analysis of the ergative structure of the clause. Transitivity examines different processes types and participant roles, that is the specificity of their grammatical structure in terms of the kind of entity to which a process is extended. The ergative structure however enables us to examine the clause in terms of a more general representation of agency, that is whether the process is brought about by an external agent or is self-engendered (van Leeuwen, 1988:8; Halliday, 1985:144-149).

Ex. Dr. Smith delivered Sandy yesterday
 (agent) (process) (medium)

Ex. Sandy was delivered by Dr. Smith yesterday
 (medium) (process) (agent)

Ex. Sandy was delivered yesterday.
 (medium) (Process)

The above examples all realize transitive clauses, the first in the active voice, the latter two in the passive voice. In terms of the ergative structure, in the first two examples an agent, *Dr. Smith*, is represented as causer of the process *delivered*. In the third example, the causer of the process is deleted. However it is still possible to ask "by whom or what" was Sandy delivered. The medium is that participant most closely related to the process, that is the participant without which the process may not be carried out. In transitive clauses, as the above illustrate, the medium is represented by the goal/patient participant role, in this case *Sandy*.

In intransitive clauses, the process is not represented as extending to another entity:

Ex. Dr. Smith delivered yesterday
(agent/medium) (process)

As the example illustrates, the actor in intransitive clauses realizes the medium, as well as being the causer of an action. What all four examples have in common whether transitive or intransitive, and whether or not transitive clauses are realized actively or passively, is the potential to realize an external agent. They are therefore said to encode an ergative process. The following example, while representing the same event, is said to encode a non-ergative, self-engendering process in which there is no external agency.

Ex. Sherry was born yesterday
(medium) (process)

Semantically then, it is represented as a self-caused process and obscures agency. As I will show, most of the processes in these texts coded as non-ergative are either action or behavioral processes involving the body. It draws attention to the representational

practices within which the body is represented as an object contained and removed from the social. It is not that the body is contained or outside the social; but that these representational practices both obscure the inscription of the social on the body, and in turn, the power, the agency of the body to disrupt and reconfigure the semiotics of the social. A non-ergative representation of body processes consequently obscures the dialectic between the semiotics of the body and that of the social. These insights gained from an ergative analysis of the clause are therefore an important complement to include in the analysis of transitivity.

Grammatical Inscriptions of an Asocial Body

Across all five texts, relational processes are consistently the most prevalent processes realized (see Table 3.2). Texts B, C and E are composed of between 44% to 46% of relational processes, while Text A and D are comprised of 50% and 40% respectively. In Text A, D and E, mental processes proportionately represent between 21% to 23% of the processes that occur in these texts, while Text B and C are comprised of 30% and 26% respectively. With respect to action processes, Texts A, B and C are composed of between 20% to 23%, while a slightly greater proportion of action processes occur in Text D and E, 26% and 31% respectively. Thus while the predominance of relational processes is fairly consistent across all texts, there is some variation across texts in the proportion of mental and action processes. Lastly, behavioral processes account for between 3% and 7% in all texts with the exception of 13% in Text D.

TABLE 3.2 A COMPARISON AMONG PREDICATIONAL TYPES

Process	Text A	Text B	Text C	Text D	Text E	Total Combined Texts	
Relational	156 (50%)	135 (44%)	41 (46%)	99 (40%)	107 (44%)	538	45%
Mental	73 (23%)	91 (30%)	23 (26%)	53 (21%)	52 (21%)	292	24%
Action	62 (20%)	72 (23%)	19 (21%)	64 (26%)	75 (31%)	293	24%
Behavioral	21 (7%)	9 (3%)	6 (7%)	34 (13%)	11 (4%)	81	6%
Total	312 (100%)	307 (100%)	89 (100%)	250 (100%)	245 (100%)	1204	100%

In looking at sub-types within each predication type, there are again fairly consistent patterns as to which sub-types are most frequently realized in these texts and which ones are virtually absent (see Tables 3.3, 3.4, 3.5, 3.6). Within relational processes, and in fact across all texts, relational attributive processes are realized most frequently. Among mental processes, cognition processes are most prevalent excepting Text C with a higher proportion of perception processes, while affective processes predominate among action processes excepting Text D with a higher proportion of designation processes.

The other pattern to note at a more general level is that across Texts A through D, there are more physician utterances than utterances by women. As a consequence, more processes occur in physicians' speech than in the speech of women (Tables 3.3, 3.4, 3.5, 3.6). In Texts A, B, and D there are approximately three times more physician processes than processes by women, and in Text C this proportion extends to six times the differential distribution between participants. Only in Text E are the distribution of predication types across all processes fairly evenly distributed between both physician and woman.

In turning now to look at the different predication types, the prominence of relational processes across these texts is significant in that they represent the world in terms of durable states of being : attributive, classifying, locating, possessing and identifying. But in order to say more about the significance and distribution of all processes, we need to look closely at who does the representing, and which participants are represented as realizing the more dynamic roles of doer, sayer and sensor (*er* roles)

TABLE 3.3 RELATIONAL PROCESSES

Process	Text A	Text B	Text C	Text D	Text E	Total Combined Texts
Attributive	51 (43/8) ¹⁰	48 (32/16)	20 (17/3)	40 (34/6)	33 (15/18)	192 141/51
Locational	30 (26/4)	34 (25/9)	7 (5/2)	13 (11/2)	25 (13/12)	109 80/29
Classification	31 (23/8)	16 (13/3)	5 (4/1)	18 (17/1)	13 (12/1)	83 69/14
Identification	12 (8/4)	19 (18/1)	2 (2/-)	6 (6/-)	15 (6/9)	54 40/14
Possessive	5 (3/2)	9 (5/4)	6 (5/1)	6 (5/1)	10 (6/4)	32 26/6
Circumstantial	15 (12/3)	5 (5/-)	5 (3/2)	10 (10/-)	4 (3/1)	39 33/6
Existential	9 (7/2)	1 (1/-)	-	5 (3/2)	6 (6/-)	21 17/4
Intensive (Int.Rel) ¹¹	3 (2/1)	3 (3/-)	-	1 (1/-)	1 (-/1)	8 6/2
Total	156 (124/32)	135 (1027/33)	41 (32/9)	99 (87/12)	107 (61/46)	538 412/126

¹⁰ Bracketed numbers refer to the respective number of physician and woman processes that occur in a text (MD/Woman).

¹¹ Internal Relations

Table 3.4 ACTION PROCESSES

Process	Text A	Text B	Text C	Text D	Text E	Total Combined Texts	
Affective	28 (20/8) ¹²	42 (36/6)	8 (7/1)	18 (15/3)	31 (19/12)	127	97/30
Motion	13 (10/3)	13 (8/5)	4 (4/-)	11 (9/2)	26 (11/15)	67	42/25
Designation	7 (5/2)	10 (9/1)	3 (3/-)	25 (12/13)	9 (2/7)	54	31/23
Resultative	8 (6/2)	1 (1/-)	-	7 (6/1)	1 (1/-)	17	14/3
Causative	4 (4/-)	3 (2/1)	2 (2/-)	3 (3/-)	4 (3/1)	16	14/2
Transfer	2 (1/1)	3 (2/1)	2 (2/-)	-	4 (1/3)	11	6/5
Total	62 (46/16)	72 (58/14)	19 (18/1)	64 (45/19)	75 (37/38)	292	204/88

¹² Bracketed numbers refer to the respective number of physician and woman processes that occur in a text (Md/Woman).

TABLE 3.5 MENTAL PROCESSES

Process	Text A	Text B	Text C	Text D	Text E	Total Combined Texts
Cognition	36 (27/9) ¹³	34 (25/9)	5 (4/1)	21 (9/12)	23 (11/12)	119 76/43
Perception	14 (12/2)	18 (12/6)	12 (12/-)	10 (10/-)	14 (7/7)	58 53/15
Reaction	8 (5/3)	12 (11/1)	5 (5/-)	6 (6/-)	8 (3/5)	39 30/9
Verbal	15 (8/7)	27 (22/5)	1 (1/-)	16 (13/3)	7 (1/6)	66 45/21
Total	73 (52/21)	91 (70/21)	23 (22/1)	53 (38/15)	52 (22/30)	292 204/88

¹³ Bracketed numbers refer to the respective number of physician and woman processes that occur in a text (MD/Woman).

TABLE 3.6 BEHAVIORAL PROCESSES

Process	Text A	Text B	Text C	Text D	Text E	Total Combined Texts	
Behavioral ¹⁴	21 (11/10)	9 (8/1)	6 (5/1)	34 (28/6)	11 (7/4)	81	59/22

¹⁴ Bracketed numbers refer to the number of physician and woman processes that occur in a text (MD/Woman)

and which the more passive roles of patient, goal, range, as well as those roles associated with relational processes (ed roles) (Hasan, 1989:37).

Action Processes: Action processes are significant because of the way in which they represent how we act in and on our environment, that is, our ability as actors to affect other people and things. Among the six action process types, action affective constitutes the largest group, followed by motion and designation processes. Combined, they represent 86% of the action processes across these texts with relatively few representations of action transfer, resultative or causative processes. The significance of this, however, is only apparent when we consider which processes are transitive and intransitive; and in the case of the former, who does the acting upon whom, whether this is explicitly encoded or deleted through passive representations and grammatical metaphors, and the consequences of this for an analysis of the ergative structure.

Action processes are particularly revealing for how, within the institutional context of the medical interview, bodies are 'naturalized' as a physical object removed from the social and the means in and through which we are semiotically constituted as a disembodied self. First, I want to illustrate how medical semiotic processes, processes of 'doing' (i.e. tests and procedures) that inscribe women's bodies as external, physical law-like objects, are grammatically represented in language as such. And second, I will illustrate the effects of these semiotic processes as constituted in women's speech. In actively positioning themselves as an 'I' within the discursive formation of biomedicine, its structures of knowledge and forms of representation, women reinscribe a body externalized and distanced from the self.

Physicians are implicated as actor in a total of 63 action affective processes. Where they are explicitly represented as actor in 37 processes, their actions extend in 21 instances to an explicitly encoded patient, the majority of which concern babies. For example :

Text A 115 do you try an deliver a breach ?
Text E 113 we usually check it again

While most utterances of this type are spoken by physicians, we find instances of this grammatical structure spoken by women. In the first instance, *you* as a pronominal form encodes the physician as actor, while *a breach* encodes the baby as patient of the action *deliver*. In the second example, *we* as a pronominal form encodes physicians, whose action is directed towards *it*, an impersonal pronominal form encoding haemoglobin.

In the remaining 16 instances, physicians are represented as the actor of an action process but without an explicitly represented patient. The majority of these involve grammatical metaphors. Grammatical metaphor is a term used to denote how a typical or congruent realization for a particular grammatical category is transformed into a different grammatical realization (Halliday, 1985; Ravelli, 1988; Fowler, 1992). The ideational grammatical metaphors revealed through a transitivity analysis illustrate how a *process* typically realized as a verbal group is transformed into a *nominal group*. Examples of ideational grammatical metaphors realized across these texts are:

Text A 115 do you do a cesarean ?
Text B 74 he'll do an ultrasound on that day
Text D 85 I don't routinely do an internal
Text E 66 you probably have to do an episiotomy
Text E 107 we don't do that many transfusions

Typically then, many physician-initiated action processes take the form of *do* which acts as an empty verb, *plus* the process which is realized in nominalized form - *cesarean*, *transfusion*, *internal*, etc. And this has several effects. By transforming a process into a 'thing', it enables a process to be encoded in pronominal forms such as *it*. So, for example, many physician initiated actions are realized through utterances such as:

Text B 23 he does it

Text E 73 do you do it in the same place ?

But it is also significant to note that while women are the implicit recipients of these actions, they are not explicitly represented as patient in the grammar of the clause. In terms of ergative structure then, 'women's bodies as the medium, that without which the process may not take place' is the absent but assumed background upon which the agency of physicians takes place.

A second consequence of nominalizing the action processes of physicians is that in these nominalized forms, action processes no longer require an explicit actor to carry them out. There are at least another 26 action processes across these texts in which physicians as actors are not explicitly represented as such.

Text A 134 you'd have a cesarean section

For example in Text A, while physicians *do* cesareans, women *have* cesareans. Consequently the representation of an action process done by physicians upon women is grammatically realized as a relational possessive process *have*, a 'thing' that women *possess*. And in doing so, the patient of the process is explicitly represented as the subject of the clause, while the physician is elided as actor.

Moreover, because action affective processes realized through the verbal structure 'do plus nominalized action' can be realized as a nominal group, it also allows for these processes to be realized in their passive form, enacting another transformation that deletes the actor of the process.

Text B 80 The trial of version is done at the hospital.

Text C 38 it hasn't been done.

Text A 13 have you had that done ?

In Text B, the action of a physician turning a baby in utero from the outside is nominalized as a trial of version; and positioned as the subject of the clause, the process is now realized in the passive rather than active voice. Similarly in Text C, the same passive transformation occurs with the action of 'doing' tests where the action of testing becomes the nominalized form 'test' or its pronominal form *it*, realized as the subject of the clause. In the third example from Text A, the process of testing realized in its pronominal form *that* combines two different transformations already illustrated in action affective processes. Like the example '*have* a cesarean' realized as a relational possessive process, women '*have* tests'; thus the patient of the process is realized as the grammatical subject. But the process is also realized with a past passive form *done*, implying but not representing an actor as a circumstantial element.

A final example from Text B illustrates again how nominalizing a process enables it to be represented as a grammatical subject:

Text B 89 if it doesn't work

In this case, however, with respect to the ergative structure, the action of turning the baby encoded by *it*, is represented as a non-ergative process again obscuring the agency of the physician.

Finally, there are examples of grammatical metaphor in which neither actor nor patient are explicitly represented :

Text B 25 different approaches to a breach delivery

Both *approach* and *delivery* are nominalized forms of action processes: *delivery* in this case also realizes a relational classification, with *breach* the classifier of the nominalized form *delivery*.

In total then, physicians are implicated in 63 action affective processes. Aside from the 37 processes in which they are explicitly structured as actors, the transformation of action processes through nominalization and passive verbal realizations elides them as actors from a further 26 action affective processes. And while women and babies are explicitly structured in the participant role of patient in 36 out of 63 affective processes, the realization of action processes through grammatical metaphors also works to structure women in particular as the assumed background upon which physicians act. Thus we have a pattern built up in which physicians are the assumed actors whose action processes are directed towards babies and upon the bodies of women frequently not represented and implicitly assumed. In terms of the ergative structure then, women's bodies, the medium, are striking for their absence within representations of medical processes of doing - a haunting reminder of Barbara Duden's (1991) injunction that the modern body has been conceived as a physical object outside history and representation.

Furthermore, the disjuncture between the baby as an explicitly represented medium and women's bodies as an absent medium in the ergative structure of physician-initiated action processes provides evidence at the lexico-grammatical level for feminists' arguments that within a medical-legal apparatus, women's bodies are constructed as peripheral and in competition with the interests of the fetus (Overall, 1987; Eichler, 1988, Rogers, 1989; Duden, 1993; Petchesky, 1987; Franklin, 1991).

In turning to action processes where the body is explicitly represented, the body is realized as actor in 15 action affective processes.

Text B 64 the ligaments that support your uterus

Text B 97 your membranes have ruptured

Text B 108 some of these things will change

As example B 64 shows, there are three clauses in which ligaments as actors are involved in a transitive process supporting or holding up the uterus. A further ten affective processes are represented as non-ergative, illustrated by the latter two examples from Text B. Thus the body is generally not represented in processes extending to other entities but rather represented within self-engendering processes. And represented as self-engendered, the body is naturalized as a physical domain removed from the social.

The body is also represented as actor in 10 action motion processes, eight of which occur in Text E in reference to haemoglobin.

Text E 127 if it had dropped at that point

Text E 128 you went a little low that time

Text E 105 we have to try to get their haemoglobin up

In the first example, the motion process *dropped* combines with the participant role of actor, *it*, a pronominal form realizing haemoglobin. A second participant role may be

represented as either a spatial or temporal locative. In this case, a temporal locative is realized by *at that point*. As these examples illustrate, the movements of haemoglobin are monitored by physicians and in three instances haemoglobin is personified through the pronominal form of *you*, as in the example Text E 128.

The monitoring of haemoglobin, however, enables physicians to initiate actions to affect its movements. The third example E 105 in fact realizes a multiple predication that illustrates both an action causative and action motion process. Action causative processes are typically realized through verbal processes of *get*, *have*, *let*, and *make* whereby one actor initiates or directs the actions of others. In the example given then, the initiator is realized by *we*, causing an action motion process realized by *get haemoglobin up*. In terms of agency then, the initiator role makes agency explicit in the transitivity structure of the clause. It is significant then that while most processes involving the body are self-engendering, where we do see a relation between the body and the social it is realized through an action causative process in which the physician is the initiator.

Of the 16 action causative processes that occur in these texts, physicians are represented in the initiator role. Thirteen of these pertain to physicians *getting* tests done, *letting* actions happen, or circumscribing the movements of women in general as the following three examples illustrate.

Text A 85 we may have to get an ultrasound done

Text E 71 if they just let the head come slowly

Text D 73 we'll get you to come up here

What is the effect then of a body externalized and absent from representation; or of a body represented as contained and self-engendering whose law-like movements may

be affected by physicians' actions ? That is to say, what is the effect of these meaning making practices in constituting the social subjectivity of women, and how is this discursively represented in the enunciative patterns of women ? There are a number of examples realized both through action affective and transfer processes that foreground the dissociation of body and self in representations of the body.

Two instances of grammatical metaphor in Text E provide an insightful example of how in taking up structures of knowledge that naturalize the body as an object, women constitute themselves as a disembodied 'I' within biomedical discourse. In the following question and answer exchange, the first utterance, a question, is spoken by a woman and the second, an elliptical response, is uttered by a physician :

Text E 89 do I do bloodwork every week still ?

Text E 90 uhm actually you don't have to

Both examples follow the grammatical pattern seen consistently across physician action affective processes that involve the structure of 'do plus nominalized process'. And consistent with these processes, the patient, the women's body, is structurally absent from the process. While in all other examples in these texts it is the physician who is structured as the actor, in these two instances a woman is positioned as the actor of the process. The woman in actively taking up the position of actor in effect externalizes and distances herself from her body. By association with an absent body, she discursively realizes the 'I' of biomedical discourse dissociating body from self

That she is not in fact the actor of the process 'do bloodwork' is foregrounded in her own utterance slightly later in the interview when she asks:

Text E 112 we did bloodwork an stuff then ?

While the 'we' ambiguously refers to both the woman and physician as joint actors of a process, it also, following the grammatical pattern of physicians previously discussed, encodes 'we' as a more general pronominal form indexing the conceptual strategies and practices of biomedicine; practices enacting or initiating processes on women's bodies albeit absently represented.

Another striking example of how women are discursively inscribed through action affective processes that externalize their body occurs in Text D :

Text D 51 it hasn't slowed you down too much

Text D 52 it hasn't slowed me down at all

These utterances follow a discussion in which a physician has noted with some concern that the woman has not gained much weight during her pregnancy. The woman in response suggests her small weight gain is because she is quite active. The initial utterance by a physician is in turn repeated by the woman with only the pronominal form changed from *you* to *me*. In terms of an ergative analysis, the *it*, a pronominalized form realizing the body/pregnancy is externalized as an agent acting on the self. The self constituted as other to the body, enacts a disjuncture between body and self.

The other consistent pattern in which women constitute the self in relation to the body as an externalized agency is found in discussions about bodily symptoms realized through action transfer processes. Transfer processes have three associated participant roles: an actor involved in the action of transferring a 'thing' (a medium) to a recipient.

Text A 30 I'm getting a lot of stretching in my ligaments

Text B 97 if you get a gush of fluid

Text E 38 I get that burning sensation

Text E 45 some patients get a numbness through there

In all eight instances across these texts, women are the recipients of nominalized bodily processes that realize a participant role of medium i.e. *stretching*, *gush*, *sensation*, *numbness*. Yet in terms of the ergative structure and agency, only the first example is suggestive of an agent *ligaments*. In the remaining clauses, women are represented as the recipients of actions by a nebulous and externalized agent, the body. While in these instances an action transfer process may be viewed as a grammatical metaphor realizing a relational possessive process, that too poses a problematic relation between body and self. As the critical literature on the body suggests, a possessive relation in which the self *has* a body is itself a relatively recent metaphor delineating the relation between body and self. The emergence of this metaphor has occurred only in the last two centuries within a medical-legal discourse which constitutes the self in a relation of ownership to the body.

Thus far, action processes have represented women either as acted upon by physician- initiated affective processes, or the recipients of externalized bodily actions in action transfer and affective processes. But whether women's bodies are passively represented as acted upon by physicians, or as nebulous and externalized agents acting upon women, both forms of representation produce structures of knowledge that constitute a disjuncture between body and self. There are, however, action processes to which we can turn to look at how women are positioned as actors.

Women are represented as actor in action affective, designation, motion, transfer and resultative processes. There are only 16 action affective clauses in which women are positioned as actor either in women's or physicians' speech. Of these, seven are

intransitive processes as the example from Text E illustrates in which the process *work* is not represented as extending to an entity :

Text E 194 I'm gonna work right up

And a further nine processes are represented as transitive :

Text D 96 I just finished my alterna vitamins

Text B 37 okay put your legs out straight for me

The first example illustrates four processes found only in Text D in which a woman is actively represented in *taking* either *vitamins* or *vegetables*. But a further four transitive processes position women as actors where their agency is at best ambiguous. Two of these include the grammatical metaphor previously discussed, "I do bloodwork". The other two instances involve an affective process but realized as a command or directive by a physician, as the example from Text B illustrates. Whereas women are associated with the participant role of patient in physician-initiated action affective processes, there are no instances across these texts in which physicians are represented as acted upon by women-initiated action affective processes.

The only instance in these texts of an action affective process whereby a woman constitutes herself as a phenomenological subject is found in Text E.

Text E 50 (I) can push there

This utterance is set within a string of utterances in which a woman is attempting to locate and identify for the physician what she is feeling. Using her body to make meaning is indicated linguistically by the indexical form *there*.

If we look at the 54 action designation processes, the most prominent actor of designation processes are women who are actors in 29 processes, 22 of which occur in text D.

Text E 200 I'll take maybe a day a week

Text D 106 I eat small

Text D 13 it's important to hum ... lie down for an hour usually on your side

Where women are positioned as actors, 11 instances specify the range or extent of the process. The first two examples demonstrate processes where the range is specified. In the first example, *take* is specified by *a day a week*; and in the second, *eat* is specified by *small*. However as the third example illustrates, there are two instances in which physician directives implicitly position women as actor in an action designation process

The remaining 18 action designation processes, 15 of which are realized in Text D, are intransitive.

Text D 47 I eat and then I just- clean up

The above example, in which a woman eats and cleans up, illustrates how women are actors and yet the details of their lives, the what, where, when and how of their actions are not represented. As a feature of the ideational metafunction that occurs across these texts, it is important to note then how women's lives as actors are represented. In one of the few action processes where women are prominently featured as actors, and which furthermore account for the prominence of action processes realized in Text D (Table 3.4), the richness of women's lives as actors drops away; out of all the potential resources available to represent women's lives only a very narrow range are utilized. And again it

is noteworthy, that while physicians are actors in only 9 designation processes, all include the specification of range:

Text C 19 I'll just check your blood pressure

Text B 140 let's go ahead and set up an appointment

Women are also positioned as actor in 18 motion processes and yet on examination of these processes, there is a remarkably consistent pattern whereby women's motion is always explicitly tied to the permission of physicians.

Text B 36 okay come on over to the table please

Text D 109 who shall you see next week ?

Text C 40 we should see you back in four weeks

Text E 155 (she just checked me) so I could go home

Within the clinical space of the office, women's movement on and off tables is commanded or directed and assisted by physicians (Text B). Yet granting permission for women to move is extended all the way up the institutional scale. In Texts D and C, the process *see* encodes more generally a motion process of going or returning to Dr. Jones' office for an appointment - a motion process in which the attending physician decides both the spatial and temporal location, that is where and when a woman should go. And finally in Text E, when women "wanna go home" from the hospital, they require the permission of the physician to leave. In contrast, seven motion processes in Text A and E represent physicians as actors, yet there are no such restrictions on their movement.

Similarly, in two of the three action transfer processes in which women are positioned as actor, their movements are circumscribed by the direction of a physician. The following example realizes a multiple predication of motion and transfer processes.

Text C 38 you can just take that down to the lab.. you can take that there

This sequence foregrounds again how the action of 'doing a test' comprises in fact a series of actions in which physicians direct the motion of women and initiate actions through which women's bodies are acted upon.

If women's movements are circumscribed institutionally upwards, then so to is the interiorization of the body. As we have already seen, the movements of haemoglobin are monitored and effected through physician initiated actions. And the monitoring of movement and position is extended to the baby. In both physicians and women's speech then, the baby is represented in a total 20 action motion processes:

Text D 80 (it) probably won't go much lower

Text A 22 is the baby pretty active ?

Text E 71 if we just let the head come slowly

While the first two examples realize a simple action motion of the baby in utero, the third example is an action causative in which physicians initiate actions to manage the motion of the baby's head during delivery.

Finally, women are positioned as actor in 16 action resultative processes in which a woman as *actor* produces a *resultant*. Not one resultative process, however, is realized in its grammatically congruent form. All instances are realized as a grammatical metaphor through a relational possessive process.

Text A 36 you've had big babies before

While a possessive process has become the common grammatical means through which we express women's generative capacities to create life, it is significant in that there are no other ways in which this process is realized in a different grammatical pattern. As I

have already suggested in reference to the critical literature on the body, a possessive relation is the historical outcome of medical-legal discourse that constitutes the body in a relation of ownership, both our own and the bodies of others, and is a representation reinscribed that dissociates body from self.

Women realize the position of actor in a range of action processes. Yet these are represented in ways that either circumscribe their movements (motion and transfer), transform their generative capacities into a possessive relation (resultative) or diminish their accomplishments (affective and designation) as actors. And in representations with physicians, women are positioned as the recipients of physician actions or directives for action. These then are the culturally sanctioned relationships between participants realized as representations of action processes within the institutional context of the medical interview.

Behavioral Processes: There is another group of processes in which women are positioned as behavers. And while in some respects they are similar to action processes, Halliday (1985:128) has described physiological and non-directed psychological actions as behavioral processes. He suggests these processes function as an intermediate between material (action) processes and mental processes where the behavior is a conscious being like a sensor but the process is more like a doing and is typically realized with only one participant. In terms of transitivity they are grammatically similar to intransitive action processes, but in terms of an ergative structure, they realize self-engendering processes.

In 59 out of 81 instances, women are behavers in these processes as the following examples illustrate:

Text C 19 you've gained some weight finally
 Text A 94 ...if she bleeds
 Text C 42 when are you due ?
 Text D 99 ...you're breastfeeding

The first three examples are representations of self-engendering processes - gain weight, bleed and due (to deliver). And among all these behavioral processes, there are only two ergatively structured representations realized as breastfeeding in which a medium, the baby, is assumed but not represented. There are also a further 10 behavioral processes that are nominalised:

Text A 95 if she has a really- serious- bleed
 Text B 106 if you are having contractions

The physician's utterance (A 95) grammatically transforms the process *bleed* into a noun, classified by *serious* and realized through a relational possessive process. The comparison with the previous utterance by a woman (A 94) is significant. Instead of the action of a woman bleeding, *bleed* is now possessed as a thing, the effect of which is to 'naturalize' the body as a physical object.

The only other behaviors in these texts are the baby and a physician. The baby is behavior in 11 self-engendering processes such as *survive*, *sleep*, *grow* and *mature*. And there is only one process in which a physician, as pregnant woman, is the behavior.

Text B 34 I'm not getting sick anymore

The above example is an instance in which a relational attributive process realizes a behavioral process.

What is remarkable then about these processes in which women are prominently realized in relation to bodily processes, is the effect of representing the body as self-

engendered. It is in effect a representational move that removes the body and positions it outside the social. A move furthermore that naturalizes it as an object of physical law-like "happenings" when juxtaposed with self-engendering action motion and affective processes. The grammatical resources to represent the body differently, to position it dialectically with the social constitute a missing register of possible meanings not made.

Relational Process: As previously noted, relational clauses represent the group of processes most prevalent across all texts. These processes more generally are classifying, identifying, locating and possessing, the durable states of being in which the world is constructed as a given rather than an active world of saying and doing; and they are realized primarily by verbs *be* and *have*. Furthermore, they tend to predominate in science and more abstract, generalized texts such as studies and reports (Lemke, 1987; van Leeuwen, 1988; Fowler, 1992). According to Hasan's (1989:46) cline of dynamism, that is the effectivity with which we operate within and upon our environment, these groups are the least dynamic. But it is significant nonetheless as to which speakers discursively occupy the enunciative position from which to classify, identify and locate, and on whom or what are these categories inscribed.

While attributive processes followed by those of locational and classification are the most prominently realized in all texts (Table 3.3), what I want to reveal through an examination of these processes are the most prominent participants of these processes, as well as the enunciative patterns realized by women and physicians. I will begin then by examining together the patterns of relational attributive, locational, classification, identification and possessive relations as they combine with the categorizing of babies,

women's bodies and labour. Second, I will look at the discursive constitution of *I* and *you* as realized in relational processes. And third, I will examine the linguistic resources available that enable the presentation of factual accounts of the world.

The most prominently realized entity involved in relational processes is baby or some anatomical correlate such as head as the following examples illustrate:

Text A 147 as the baby gets bigger

Text E 29 the head is definitely right down- here

Text C 13 the baby was a normal average size

Text B 38 that's the bottom here

Across these texts *baby* is represented in 22 attributive, 41 locational, 25 classificatory and 12 identificatory processes. The grammatical features that distinguish the various processes can be explicated by examining the participant roles of each clause-type

Attributive clauses are comprised of an item and an attribute. Following the example from Text A then, *the baby* is the item, while *bigger* is the attribute of the baby. Text E provides an example of a locational process. The participant role of located is realized by *the head*, while the participant role of locator is realized by *down here*. And the example from Text C is a classification process. The participant role of classified, a member of a general class, is realized by *the baby*, while classifier is realized by *a normal average size*.

The final example from Text B represents a multiple predication - an identification, as well as a locational process. The participant role of identified realized as *that*, is a member of a unique class. The participant role of identifier is realized by *the bottom*. With respect to the locational process, the participant role of located is realized by *that/bottom*, while locator is realized by *here*. And lastly, if we account for the

enunciative patterns of the relational processes categorizing babies, 82 clauses occur in physicians' speech. Another 18 clauses occur in women's speech, the majority of women's being locational (8) and classification (7) with no identifying processes.

The second participant that is prominently featured in relational categories represents women's bodies, either as an anatomical/physico-chemical entity or in terms of signs and symptoms. Of these 67 relational processes, 53 occur in physician utterances while only 14 occur in women's speech. In terms of attributive processes, 21 represent women's bodies, the majority (18) spoken by physicians.

Text B 63 does your abdomen go hard at all with them ?

Text B 64 I hadn't noticed that it was

Text B 65 your uterus is nice and soft

This brief sequence from Text B exemplifies the attributive clauses that occur in physician's (B 63 and B 65) and women's speech (B 64). As the second example illustrates, of the three attributive clauses spoken by women, all are indexical to the conversation.

Locational, classificatory and identificatory processes combine for a total of 32 clauses representing women's bodies, 24 of which are utterances of physicians.

Text E 51 it's just sort of above the uterus there

Text E 105 if your haemoglobin is like at less than eighty after delivery

Text B 66 that's called the round ligament

The above clauses illustrate examples from physicians' speech. In the first example (E 51), a locational process generally refers to the location of signs and symptoms indexed by the pronominal form *it*. Five of the nine classification processes occur in Text E and generally

concern the classification of haemoglobin (E 105). And the five identification processes concern the identification of anatomy or haemoglobin (B 66).

Very few of these relational processes regarding women's bodies are realized in women's speech. However, it is worthwhile contrasting comparable processes across women's and physicians' speech. The following clauses illustrate 4 of the 8 processes that occur in women's utterances.

Text E 42 it's like underneath

Text E 15 what was my weight... last time ?

Text A 63 this is the last one

Text E 26 is that okay down there ?

The locational process (E 42) is much less locationally specific, while the classification process (E 15) realizes a question regarding the classification of women's bodies. And finally, the identification process is more generally indexed to the condition of pregnancy realized by the pronominal form *this*, as compared to the specification of anatomical naming that occurs in physicians' speech. The final example realizes a multiple predication - a locational and attributive process. It is perhaps exemplary of a representation of the social self distanced from the body during the process of examination. The woman, referring to the area of examination as *that*, locates it as *down there*, a move that spatially embodies a distancing of the self from the body, while asking at the same time for an affirmation that it is okay.

Typically, women's signs and symptoms are realized through a possessive relational process. These processes have two participant roles, a possessor and a possessed. Of the 14 possessive processes, 11 occur in physicians speech, while only 3 occur in women's speech.

Text E 45 she had some swelling and numbness
 Text C 26 (you have) a hard little uterus there
 Text E 38 I had it with Sarah

In the first example, the participant role of possessor is realized by *she*, while that of possessed is realized by *some swelling and numbness*. The second clause, however, realizes a multiple predication. That which is possessed *a hard little uterus*, at the same time realizes a relational attributive process. Given the prominence of possessive relations for representing bodily symptoms in physicians' speech, it is not surprising that women use the same grammatical pattern as the final example illustrates.

In addition to the relational processes categorizing women's bodies, there are another 11 processes that refer more specifically to the birthing process:

Text A 78 each labour does get a little faster
 Text A 121 like if it's a planned one

Seven of the 8 attributive clauses regarding labour occur in physician's utterances, as in the first example, while 2 of the 3 classification processes occur in women's utterances, as in the latter example.

Another set of participants in relational processes occur with the enunciative patterns in and through which both physicians and women are interactionally and discursively constituted as *I* and *you*. Both women and physicians discursively constitute themselves as *I* across a combined total of 32 attributive, locational and identification processes. The majority of women's clauses (16 out of 21) are realized as attributive:

Text E 188 I've been really tired
 Text C 2 fine

As the first example indicates, attributive clauses may be one linguistic resource in which women may speak as an embodied self. However, as the second example above illustrates, in response to a question, attributive clauses are typically elliptical. This serves as an example showing that when women are positioned as respondents, they frequently fail to elaborate self-representations of an embodied self. In contrast to the predominance of attributive processes that occur in women's speech, 8 of the 11 relational process in physician's speech are locational:

Text B 129 I'm not gonna be here anyway

If the constitution of the *I* is differently patterned between women and physicians in relational processes, then an even more striking difference is realized in the enunciative patterning of *you*. In physician's speech, women are constituted as *you* in a total of 39 attributive, locational and classification processes. In contrast, there is not a single instance among relational processes across these texts in which a physician is constituted as *you* in the speech of women. Typical of the relational processes in which women are constituted as *you* in physician utterances are the following examples:

Text A 34 you're getting bigger

Text D 44 when you're pregnant even if you're overweight

Text C 38 since you were at Dr.Smith's office

Text A 7 so you're about 28 weeks now ?

The first two examples realize attributive processes. In the first example *you* is specific to the woman, while in the second, *you* more generally indexes pregnant women as a group. The third example (C 38) is an instance of a locational process in which the locator role is realized by the prepositional phrase *at Dr. Smith's office*. And the final example is an instance of a classification process.

Thus far I have examined the entities and subjects associated with the participant roles of item, classified, located, identified and possessor. But relational processes also provide linguistic resources with which to factualize phenomenon.

Text A 116 it looks like it's- it's a really big baby

Text B 114 it's normal to have pink discharge

Text A 134 it's very unlikely that you'd have a cesarean section

Text D 15 there's usually .hh at least five in an hour

The first three examples above illustrate impersonal noun fact clauses in which neither verbal sayers nor mental sensors are represented as projecting a clause (Halliday, 1985:243). The first example is of a simple noun fact, the majority of which occur in physicians' speech. The second and third examples are respectively modalities of usuality and probability. In the second example, the projecting clause is an attributive process realized by *it's normal* (a modality of usuality), while in the third, it is an attributive process realized by *it's very unlikely* (a modality of probability). These relational processes projecting a clause are in fact incongruent grammatical forms of modality in which the speaker's opinion regarding the truth value of a proposition is linguistically encoded in an objective form. These are the interpersonal grammatical metaphors that I will return to in the next chapter with my analysis of the interpersonal metafunction. The fourth example is an instance of an existential process. These processes represent events or things as they 'exist' and structurally they realize only one participant role realized as an existent, in this case *at least five [movements] an hour*. These then are the linguistic resources used primarily by physicians which objectify the information given.

Relational processes are also a resource used by physicians to direct the movements and actions of women:

Text A 50 your next visit will be in about two weeks

Text B 112 the third thing is if you are having bleeding more than a period..okay bleeding more than a period let us know

As the first example illustrates, in 16 instances physicians indicate the timing of women's appointments and tests with a locational process. The second example is of an identification process used by physicians to project a series of circumstantial elements followed by a directive for action.

Finally, there are two other types of relational processes that while minimally represented in these texts, are resources used predominantly by physicians (Table 3.3) in the presentation of information and advice giving:

Text A 116 yeah it depends on the position of the breach

Text E 101 you've stayed- between one thirty and one forty-two errr sorry one forty-one with the haemoglobin

According to Halliday (1985:119), circumstantial processes express a circumstantial relationship of time, place, manner or accompaniment between the participants of the clause. These processes occur in Text A and D when physicians discuss the possibilities of different actions contingent upon the position of the baby or the due date.

The second group of processes are intensive (internal relation):

Text A 80 your glucose test shows that you're not a diabetic

Text D 44 but it's hard not [to worry] .hh considering your body changes so much

Halliday (1988:173) argues that as part of the emergent pattern of scientific English there are a group of verbs such as *show*, *indicate*, *suggest*, *illustrate*, etc. in which a process either sets up a relation between two nominalized processes based on our interpretation of them; or serves as a projection of a mental process. The six instances of intensive

internal relation processes realized by physicians comprise both types. As the above examples illustrate, these processes occur in reference to test results or indications associated with particular conditions. The two processes that occur in women's speech are of the latter group only.

Mental Processes: Halliday (1985) suggests there is another group of processes that function differently than action or relational processes. While labelling processes of feeling, thinking and perceiving as 'mental' may be problematic, and indicates the extent to which language categories remain bound up with the cognitivist side of a mind/body split, I am also concerned with how they are primarily realized by different verbal groups.

The processes referred to as cognition, reaction and perception share similar grammatical characteristics that distinguish them from action processes (Halliday, 1985; Gregory, 1982; van Leeuwen, 1988). They are two-participant clauses in which one participant, a sensor, is endowed with human consciousness. And while this participant role is more restrictive than that of action clauses, a second participant, a phenomenon however, need not be a "thing" as in action processes but may also be a fact. Thus while facts can be sensed, they cannot do anything nor have anything done to them. At a semantic level, these 'sensing' processes are important for they point to the ways we transform in and through language intimate forms of non-discursive knowledge; and how in turn these forms of representation, structures of knowledge, reinscribe and come to contain, although never foreclose, that which is non-discursive.

Among mental processes, those of cognition have the highest representation which is consistent in all texts excepting Text C. However, there are instances where cognition

processes such as "I think" realize not a proposition but a modality of probability. These then are grammatically incongruent forms. When we account for these interpersonal grammatical metaphors, only 78 cognition processes remain. In addition, perception and reaction processes occur 68 and 36 times respectively across these texts. What is most remarkable once again is the enunciative patterning. While women are sensor in 21 perception and 29 reaction processes, few of these occur in women's speech; rather, the majority of these occur in physician utterances. Furthermore, in Text C and D, neither of these processes occur in women's speech at all. Only in Text E is there a more even distribution of these processes between the woman and physician. Consequently, the linguistic resources available to women in representing body knowledge are more limited than it initially appears.

In turning first to clauses in which physicians are sensors, the majority of these occur in physicians' speech. Physicians are sensor in 35 perception clauses.

Text C 23 I'll just listen to the baby

Text E 101 we often see it drop

Text D 84 we tend tah- watch the baby with a heart-rate test

Text A 25 I can sort of start tah- feel where the baby's head is

As these four perception processes realized by verbal groups *see*, *look*, *listen* and *feel* illustrate, technologies such as blood tests, ultrasound, stethoscope, and heart rate monitors are utilized to gain access to the 'inner body', to the inner phenomena of the baby and haemoglobin. These specific technologies which constitute more broadly the medical gaze are indexed by the verbal process *see* as illustrated in the following example in which physicians *see* women:

Text B 141 we should keep seeing you every week

Whereas women *seeing* doctors was interpreted as a motion process whereby women's movements are directed by physicians, physicians *seeing* patients invokes a multi-layered perceptual process in and through which the body is interiorized. Thus across these texts, *see* is a polyvalent process, the specific meaning of which may only be arrived at in relation to other processes and participant roles in specific instances of speech.

There are also five perception processes realized grammatically in physicians' speech as either attributive, identification or locational relational clauses in which the physician as sensor is absent :

Text D 80 it actually feels quite low

Text E 57 your uterus itself doesn't feel firm or tender

In cognition and reaction processes, physicians realize the participant role of sensor 37 and 7 times respectively as the following clauses illustrate:

Text A 149 I don't know if there's any other questions you have

Text D 105 we don't really like- you to have a low haemoglobin

The first clause realizes a cognition process *know*, while the second a reaction process *like*. In both cases the phenomenon, a nominal group, is realized as an embedded clause.

What is striking, however, is a comparison of enunciative patterns between physicians' and women's mental processes. As these above examples illustrate, across all three processes the majority of clauses in which physicians are sensors occur in physicians' speech. Thus, physicians are sensors in cognition, perception and reaction processes 31, 33, and 6 times respectively in their own speech, while sensors in the speech of women 6, 2 and 1 times respectively. In turning now to clauses where women

are sensors, in two out of the three processes - perception and reaction, this enunciative pattern is reversed.

These processes of perception, cognition and reaction are semiotic resources available for women to produce ways of speaking about non-discursive knowledge. We can recognize ways in which women are constituted as subjects of biomedical knowledge, positioned within forms of representation in which subjects spoken by biomedicine are of a self dissociated from a body. At the same time, women attempt to speak in ways other than the hegemonic grammatical patterns of action and relational processes that constitute biomedical discourse.

In looking at cognition and perception processes together, in 24 cognition and 9 perception processes women are sensors in their own speech. The following two examples illustrate how in 10 cognition and 1 perception process the phenomenon may be realized as an externalized fact.

Text E 127 I just wondered if it had dropped at that point

Text A 77 I was wondering too, I've heard by the third one- the labour's usually a lot quicker

However in another 22 clauses, 14 cognition and 8 perception processes illustrate how 'knowing' is not a purely cognitive phenomenon. In contrast to the above utterances which posit the body as externalized fact, these cognition and perception processes foreground women's non-discursive knowledge. These clauses represent potential ways of knowing and putting the body so to speak into discourse in grammatical patterns different from action and relational processes. As the following examples illustrate, 12 of

these processes represent women's knowledge about the position or size of the baby and its movements, all of which are realized with a positive polarity.

Text B 12 I can just tell where the head is

Text B 12 sometimes I can feel it down here

While the first clause is realized by a cognition process *tell*, the second is realized by a perception process *feel*.

Another nine clauses represent knowledge about other bodily signs and symptoms, and these are realized by both positive and negative polarities of knowing.

Text B 102 the last time, I don't know- it was never obvious to me

Text E 60 I just feel it every once and a while

As the first example illustrates, five cognition and one perception process regarding signs and symptoms realize a negative polarity of 'not knowing' about the body. A further two perception and one cognition process realize positive forms of knowing as in the second example. The difficulties of putting into discourse women's non-discursive knowledge is evidenced by the grammatical metaphors around sensory perceptions.

Text A 38 I get that burning sensation right at the top of my uterus on either side

Text A 39 mmmmmmm

Text A 40 just like burns. I don't know what it is

In the above exchange, *sensation* is a nominalized realization of a perceptual process, while *burns* is an action process transformed into a perception process. And in the case of *burning*, it is transformed into a modifier of the nominal form *sensation*. Furthermore, this perception process is realized as a grammatical metaphor through an action transfer process, thereby externalizing the agency of the body.

Another feature of these processes indexing women's non-discursive knowledge is that in 10 of the 22 clauses women's representation of body knowledge is indexical to observations spoken by a physician.

Text A 78 it's gonna be a pretty big baby

Text A 79 yeah I know

While the woman's comment is an affirmation of the physician's statement, it also embodies knowledge that is left unrepresented - the proprioceptive ways in which as a pregnant woman, she is intimately aware of her changing size, shape and feel of the baby. Thus we have another instance in which women do not elaborate self-representations of an embodied subject.

In turning now to reaction processes, while women are positioned as sensor in 29 processes, only 5 are realized in women's speech, three of which occur in Text A alone. These are statements regarding what women want, don't like or worry about:

Text A 113 what I wanted- if this does turn breach I wanted to ask you . cause I'm always a bit worried about that

Across these 'mental' processes, the positive polarity of women's knowledge about their bodies is centered around the position and size of the baby, the locus of much biomedical discourse as evidenced by relational locational, classification, identification and attributive processes. What is much more problematic to speak about, however, are the more vague symptoms and other sensory forms of knowledge marginal to biomedicine, knowledge that can not be 'objectified' through technological means of investigation. What I am suggesting is that our non-discursive knowledge are forms of bodily knowledge that we daily 'chart'. These are cumulative forms of knowledge about

our bodies that we take note of, and through which we come to know more intimately our bodies/selves, but that are not, or may not yet be represented in discourse. These are the 'yet to be' forms of representation, structures of knowledge that form part of the missing register, not simply of the institutional context, but perhaps rendered invisible more broadly at a cultural level

There are another two statements, one by a woman in Text E and one by a physician in Text B, that mark the enunciation of marginal forms of knowledge.

Text B:

W:28 we had all kinds of

W: 30 things, caesar salad an....it was delicious

[[]]

D: 31 oh boy all the good things

W: 30 it was great. I don't smell very good

D: 32 that's okay, don't worry about it. I think you notice that more when you're pregnant.... have you noticed ?

W: 33 smells really

In this brief exchange about smells between the physician and woman, the physician pregnant herself, enunciates a perceptual knowledge about pregnancy, confirmed and shared by the woman. In the example from Text E, however, even while the woman speaks to a form of knowledge marginal to biomedicine, she demonstrates at the same time the dialogical tension experienced by women in representing this knowledge:

W: 170 I don- I:: really think this one's coming early

D: 171 do you ?

W: 172 yeah just a feeling that this one's gonna be early

D: 173 ummm.... (I don't remember if I have the right..

[[]]

W: 174 so we'll see

D: 175 you'll be really disappointed if it's late then (hhhhhhhhhhhhh)

[[

W: 176 yes I will. I have to keep
telling myself that. That this baby will come when it's ready

In this sequence, the woman's spoken knowledge about the birth is signified by a perceptual process nominalized as '*a feeling*'. But in response to the physician's comment that positions her as sensor in a reaction process *disappointed*, she affirms this reaction process in an elliptical form. She then further adds to this a verbal process in which she is the recipient of her own *telling*, a telling that contrasts with her previous form of spoken knowledge.

So far, I have examined physicians and women as sensors respectively in their own speech. But as pointed out previously, women are positioned as sensor in physicians' speech in 8 cognition, 18 perception and 24 reaction processes. In the latter two processes, particularly those of reaction, this is substantially more than occurs in women's speech. In physicians' speech as the following example illustrates, women are positioned as sensors of babies' movements in perception processes.

Text D 13 some people really don't feel it hardly at all

Reaction processes in 8 instances co-occur with physician questions. The first example below illustrates the now familiar pattern of a multiple predication in which a relational possessive process realizes a reaction process, while the reaction itself is transformed into its nominalized form *concerns*. Another 9 reaction processes, the

majority occurring in Text B, are realized by the verbal group *worry*, and more generally co-occur with a directive not to worry:

Text D 12 have you had any problems or concerns about anything ?

Text B 131 no don't worry about it, really

Verbal Processes: The final group of processes I want to consider are verbal processes. They have a participant role of sayer, a potential recipient, and a verbiage or target. Physicians are structured as sayers in 27 of the 66 processes.

Text A 60 so I'll make a note of that

Text B 90 anyway he'll talk to you about uh ...the trial of labour

Physicians are sayers in processes involving the ordering of tests and writing down information. In the case of Text A, the verbiage realized in a pronominal form *that* points to the extra-local textual organization of the institution in organizing the birthing process. In 11 of these verbal processes women are explicitly structured as the recipient of the verbiage, as indicated by the second example.

In women's speech, women realize the participant role of sayer in 12 processes.

Text D 176 I have to keep telling myself that

Text A 86 there's something I wanted tah ask you

The participant role of recipient occurs in seven clauses, and ranges from nurses and school colleagues to a dialogical realization of self as the first example illustrates. Women are also sayers in five instances where they preface or append a statement announcing their intention to ask a question. In some cases, as the above example demonstrates, physicians are explicitly structured as recipients of the verbiage.

In Text B and D combined, women are directed to be sayers 12 times in the speech of physicians:

Text B 116 if it was more than a period then call us

Text D 15 if the baby's asleep you should count the next hour

In Text B, the directive structures physicians as the recipients of women's calling, while in Text D, the implicit verbiage is the baby's movements.

Finally, both mental and verbal processes lend themselves to a set of clausal relationships in which a secondary clause is projected through a primary clause. When a clause is projected by a verbal process, it is a representation of a linguistic representation (a locution) (Halliday, 1985:228).

Text B 51 they say if the baby's breach the heart rate's louder

Text D 97 if you're not eating well- but you said you were

Text D 78 people will say- just about anything

The above are all examples of reported or indirect speech by physicians in which the speech being reported is not represented as a wording or direct quote but as a general meaning of what was said. Four of the six instances where physicians use indirect speech occur in Text D. As the above examples illustrate, they use it to report the speech of other physicians, the speech of women, and as the last example illustrates, more generically the speech of people. But physicians also use indirect speech to report their own speech as the first example below illustrates, and in one instance there is a direct quote as illustrated by the second example:

Text D 13 we usually tell people that

Text D 80 you can't say "well it's low, that means you'll have the baby next week"

There are 7 examples of locution in women's speech:

Text A 129 they said her pelvis was too small

Text B 130 "go ahead, call them, call them"

In three of the four locutions representing physicians' speech, women use indirect speech as shown by the first example. But in a fourth instance, the woman uses a direct quote. Following a series of directives by the physician to "call us", the physician then points out that she herself may be on maternity leave. The woman in an ironic turn, imitates the physician underlining, however, in her quote the real meaning of the physicians words - to call *them*. In another three instances, women use direct quotes to report the speech of others and their own, as the following examples illustrate:

Text D 77 a lot of people still say " ah you're so [low]"

Text D 157 I said to the nurses " Call this doctor.."

While both physicians and women use indirect and direct speech to report the speech of others and their own, the enunciative patterns for reporting thought are quite different. Physicians report the indirect thought of women 7 times and in one instance represent women's thought as a direct quote.

Text D 44 whatever you think overweight is

Text B 118 I mean don't sit at home and worry about things an .hh try to decide " Do I call or don't I call"

In contrast, there are no instances in these texts where women report the thoughts of physicians. Only in Text D does a woman report the thought of other women:

Text D 114 They all thought I was gonna go first but she knew she had twins

In referring to the discussion among women in her pre-natal class, this woman's reported thought suggests that pre-natal classes are a site where other forms of representation about the body are spoken among women.

Conclusion

An analysis of the ideational metafunction has focused on representational aspects of language. The analysis of transitivity patterns revealed the relations between participant roles and how subjects are positioned *within* forms of representation as actor, sensor, sayer, behavior or the range of more passively positioned participant roles. In addition, an analysis of ergative structure revealed how agency is grammatically represented, whether as an externalized agency or as a self-engendering agency.

Ideational grammatical metaphors of physician-initiated action processes were particularly salient as forms of representation that elide women's body from the grammar of the clause. Furthermore, these forms contrast with physician-initiated action processes which explicitly represent the fetus as medium. These grammatical variations of physician-initiated action processes suggest the inscriptions of a pregnant body constituted as two separate entities. Moreover, action affective, motion and behavioral processes reveal representational practices that construct an asocial body of law-like phenomenon

The truth-effects of an absent/asocial body are to be found in self-representations that constitute the subject as disembodied. Transitivity patterns that suggest a discourse semantics of a disembodied subject are relational possessive, action transfer, and ideational grammatical metaphors of physician-initiated action processes in which women as medium become the subject of the clause. But there are instances where women's speech reveals an embodied subject - in relational attributive, and mental cognition and perception processes.

Transitivity patterns and ergative structure, however, also overlap with the interpersonal metafunction of language. Any representation involves the regulation of meanings made and is an indication of the speaker's interestedness in discourse. Thus the very act of representing is a form of social action - of making some meanings rather than others in a social context of use. The interpersonal metafunction draws further attention to social agency in the act of making meanings - the manipulation of the mood system and of modality at the level of the clause, and of the turn taking system at the level of discourse organization. Social agency in this sense involves the self-positioning of the subject in social activity structures: their rights and obligations as speakers and hearers, and their ability to position other participants as respondents in terms of what they should know and do. And it also involves the subject taking a position with respect to the truth value of the proposition. These social actions that position the subject therefore contribute to the social identity and social relations between participants. At the same time, however, these acts of controlling discourse organization, and of progressing discourse across speaker exchange boundaries in the exchange of information enable semantic change - the potential for resignification of meaning making practices. Thus they allow for other meaning potentials of self-representation that transgress normative patterns of transitivity and ergative structure.

In turning now to the interpersonal metafunction, I will consider the social agency and positioning of physicians and women in the exchange of discourse.

CHAPTER FOUR

POSITIONING THE SUBJECT: THE CONSTITUTION OF SOCIAL IDENTITIES AND SOCIAL RELATIONS

Social Agency and Power: The Interpersonal Metafunction

The component of register referred to as Tenor, the social relationship and social identity of speakers, as well as the social function for which language is used, is manifest in the interpersonal metafunction of language. In turn, the interpersonal metafunction is realized at the lexico-grammatical level primarily through the mood system and modality/modulation, and at the level of discourse through the organization of the text (Poynton, 1989; Fairclough, 1992a). One of the most salient dimensions of the interpersonal metafunction is that of power. An analysis of the interpersonal enables us to examine how power is interactionally achieved and how it affects linguistic choices at both the level of discourse and the lexico-grammatical level. Poynton (1989:78) argues that the greater the equality between speakers, the greater the reciprocity of linguistic choices such that speakers will behave in linguistically similar ways. At the level of discourse then, this involves the activity structure of turn-taking organization (including turn length and interruption); who establishes and controls topics; who refers to whom and to whose discourse; and speech function choice. At the lexico-grammatical level, this involves how speech functions are realized through the mood system, modality/modulation; and reciprocity of address terms. As the inequality of speakers increases, the linguistic choices across these systems increasingly becomes less reciprocal

The genre of medical interviews has typically been characterized as one in which physicians' power is exercised interactionally through the control of turn-taking, more specifically the asymmetry of a question and answer activity structure. Thus while physicians **take** turns asking questions, patients are **offered** turns and consequently speak only at interactionally delegated spaces. This is the deference structure to which I referred in the review of the medical interview literature (cf. Frankel, 1990). By controlling language at the level of discourse organization, Mishler (1984) has characterized the typical medical interview as an interdiscursive struggle between different structures of meaning, the voice of medicine and the voice of the lifeworld.

More recently however, Paul ten Have (1989; 1991) and Norman Fairclough (1992) have argued that the genre of medical interviewing is not static. Not only does the medical interview comprise different interactional components such as history taking, examination, and treatment etc, but as a shifting and contested genre it is a convergence of different genre types - the standard medical interview genre, as well as conversational and counselling (therapy talk) genres. Different activity structures and consequently different situated discourse identities comprise these various genre types. Moreover as Fairclough (1992:148) suggests, these varieties of medical interview do not simply coexist, but rather the articulation and boundaries between these genre types are the site of contestation and struggle. One of the distinguishing features of a medical interview, in contrast to conversation and counseling genres is a specific orientation towards identifying and provisionally solving a 'problem' within a limited time period. Medical interviews therefore have a 'natural' conclusion to the encounter (ten Have, 1989). In the case of

these medical interviews, 'the problem' is to assess the risk level of a woman's pregnancy according to standardized biomedical parameters of a physical body (O'Reilly, 1989: 8; Lippman, 1989; Quéniart, 1988).

By focusing on genre contestation, it enables us to examine social activity structures as more than simply manifesting the social relations of power. Social activity structures concomitant with interactionally negotiated situated discourse identities both manifest and construct the social relations and social identities of speakers as physician and patient (Fairclough, 1992a; Fisher and Croce, 1991). In drawing attention to the contested and constitutive nature of social relations and identities, Fairclough (1992) argues that the interpersonal metafunction provides us with analytical tools to examine cultural change with respect to social identities.

In order to understand how the medical interview genre is accomplished as a social activity, one in which the social agency, relations and identities of participants are at issue in the exchange of meanings, I will begin at the lexico-grammatical level. I will first briefly review the mood system, the primary linguistic system realizing speech functions at the semantic level. Second, I will examine the patterns of modality and modulation in women's and physicians' utterances. These indicate not only the speaker's opinion regarding the truth value of the proposition or their commitment to a proposal, but also the relations of power between speakers (Fairclough 1992a:142). Third, I will examine the reciprocity of personal deixis as forms of address within these interviews. Personal deixis is usually considered under the textual metafunction as a form of lexical cohesion. But following from Thibault's (1988) work, personal deixis which in these medical

interviews indexes the discourse semantics of biomedicine, as well as the authorized speakers of it, has implications for the interpersonal metafunction. After the analysis of modality/modulation and personal deixis, I will return to an analysis of speech function and social activity structure at the level of discourse.

Mood System

In the previous chapter, the structure of the clause was considered in terms of representation, the ideational metafunction. I now want to consider the grammatical structure of the clause in terms of the exchange of meanings, the interpersonal metafunction realized through the mood system. Halliday (1985:72-74) suggests that in the act of exchange, there are two parts to the clause - the mood and residue:

Text A 50 a (ii) I'm gonna / be away then
 (mood) (residue)

The mood consists of the grammatical subject of the clause, in this case *I*, and a finite element, *gonna*, part of the verbal group expressing either tense or modality. Combined, the variation in the ordering of subject and finite constitute typical grammatical realizations for the different speech functions such as **question**, **statement**, **command** and **offer**. The mood then is that structure of the clause that moves the dialogue forward, and upon which the validity of the assertion rests. The remainder of the clause, the residue consists of predicator, circumstantial and adjunct elements.

At the semantic level, the four main speech functions of language relate to the exchange of information or of goods and services. **Propositions** involve the giving and demanding of information. The two speech functions associated with propositions are

statement and question. Proposals involve the giving and demanding of an object or action, and they are associated with the speech functions of **offer** and **command**. These speech functions, then, set up a series of situated discourse identities, of speaker/hearer rights and obligations, in which the speech role function of the speaker is always implicated in requesting a response from the hearer (Halliday, 1985:69).

The typical realization of propositions in the exchange of information is the grammatical category of indicative with two options:

Text A 2 did you have a good Christmas ?

Text A 3 yeah, I'm tired though.

As the above exchange illustrates, when the finite precedes the subject, a question is realized as a polar (yes/no) interrogative (A 2). These questions tend to limit the response to a yes or no answer. When the mood is ordered as subject and then finite, a statement is realized as a declarative (A 3).

Wh-interrogatives, questions of content, however, may occur in both variations

Text E 15 what was my weight ... last time ?

Ex: Who did Christmas for you last year?

In the first example, the Wh-element is conflated with complement and so finite comes before subject. In the second example, the Wh-element is conflated with subject, the ordering then being subject and finite. While the above examples demonstrate how Wh-interrogatives may be content specific questions, they may also be more open-ended

Tag questions also provide a way in which speakers may directly elicit a response for confirmation of their statements, as the following examples illustrate:

Text A 94 cause if she bleeds they'd have to take it anyway, wouldn't they?

Text C 32 nice to hear, eh ?

Text C 46 she's here till the end of July...okay?

The congruent grammatical realization for questions and statements as interrogative and declarative may, however, be varied with intonation (rise and fall in tone) or with the ellipsis of subject that is understood rather than represented. In the latter case, the unmarked subject of statements is **I**, while for questions it is **you** (Halliday, 1985:90).

With respect to proposals, that is offers and commands, Halliday (1985:91) suggests that their grammatical realization is much less clear. Typically, commands may be realized in the imperative form:

Text B 36 okay, come on over to the table please

The imperative is then one form among the general class in which the subject is understood. But Halliday (1985:91) points out that commands may be realized by interrogatives and modulated declaratives as well. Thus any variation on the mood elements of subject and finite, or their presence or absence is possible.

The first example below illustrates an offer, while the second example illustrates a suggestion:

Text C 23 I'll just listen to the baby

Text B 27 let's get your blood pressure

Offers are generally realized in the declarative form with the speaker stating their intention to carry out an action. And suggestions are typically realized with *let's*. The *us* is inclusive of the actions of both speaker and listener (Halliday, 1985:88).

Modality/Modulation

Speakers' values and judgement, their intrusion into the clause is realized through a variety of linguistic resources. Within the mood system, the finite element of every clause realizes a value of either positive or negative polarity regarding the assertion of the proposition:

Text A 11 Dr. Jones was seeing you for all the other- visits

Text B 36 sorry I can't hear you with this stethoscope in my ears

The first example realizes a positive polarity, while the second a negative one. These polar choices between yes and no realize the most determinate choice of the speaker's opinion about the proposition or commitment to a proposal. But as Halliday (1985 86) points out, there are intermediate degrees of indeterminacy through which the speaker's opinion may be expressed.

In the case of **propositions**, there are two types of modality. Modalities of **probability** express the degree of likelihood, "maybe yes" or "maybe no" In their congruent grammatical form, they may be realized by a modal auxiliary:

Text D 91 you..tch could well have the baby by then

or by a modal adjunct of probability:

Text C 34 probably be- ... about the size of your other one

Modalities of **usuality** refer to the degree of frequency attached to a proposition, that is, the degree to whether it may be "both yes and no". While these may be realized by a modal auxiliary, in these medical texts they are primarily realized by modal adjuncts of usuality such as:

Text B 12 sometimes it's under my ribs

Text D 13 we usually tell people that

The degree of indeterminacy of modalities of probability or usuality may be scaled as **high, median and low values**. Modal adjuncts that correspond to these values are respectively in the case of probability: *certainly, probably and possibly*; and in the case of modal adjuncts of usuality: *always, usually and sometimes*. Each degree or value also has a comparable scale with respect to modal auxiliaries as for example: *must, will, may* (Halliday, 1985: 331).

With respect to **proposals**, the intermediate degrees between yes and no referred to as **modulation** relate to the speech functions of command and offer (Halliday, 1985:335). There are two types of modulation : **obligation** occurs with commands functioning as a requirement to carry out an action; **inclination** occurs with offers indicating a willingness to carry out an action. The following are examples of obligation:

Text D 15 you should count the next hour

Ex: you're supposed to count the next hour

Text B 53 you can relax

The first example is realized by a modal auxiliary *should*. When modulations are not realized by modal auxiliaries, they are realized by an expansion of the verbal structure. In the case of obligation, the expansion follows the structure of *be + passive participle + to*, as the second example above illustrates with *are supposed to*. This is considered a passive modulation in which the modulation is extrinsic to the actor of the process (Halliday, 1976:201). The third example above illustrates how *can* functions as a form of permission.

The following examples illustrate inclination.

Text E 29 I'll just uh- check the position of the baby here

Ex: I'm determined to check the position of the baby here

Text B 12 I can just tell where the head is

The first example is realized by a modal auxiliary *will*. In the case of inclination, the expansion of predicator follows the structure of *be* + adjective + *to*, as the second example above illustrates with *am determined to*. As an active modulation, the modulation is intrinsic to the actor, thus the subject is both actor of the process, as well as the modulation (Halliday, 1976:201). The third example illustrates how inclination may refer to ability with the modal auxiliary *can*. Thus, it reveals the multivalence of *can* as a modal auxiliary.

Both types of modulation may be realized with different degrees of obligation or inclination. The scale of obligation, from high to low values respectively, may be realized by expanded predicators: *required to do*; *supposed to do*; and *allowed to do*. And the scale of inclination may be realized by adjectives: *determined to do*; *keen to do*; *willing to do*. Lastly, as we have seen with modalities of probability and usuality, the scale of values for modulation may also be realized through modal auxiliaries. Figure 4.1, taken from Halliday (1985:335), outlines the overlap in semantic function of modal auxiliaries. Thus one of the interpretive difficulties of an analysis of modality is the double semantic function of modal auxiliaries: they may function either as modalizations or as modulations (Halliday, 1976; 1985).

Thus far four types of modality/modulation have been identified: probability, usuality, obligation and inclination, as well as their scale of values. Halliday (1985:333) also suggests that modality/modulation be analyzed according to its **orientation**

Figure 4.1 Modality in relation to Mood and Polarity (Halliday, 1985: 335)

The orientation of modality/modulation is based on whether it is implicit or explicit and subjective or objective. In combination then, the orientation of modality/modulation may be realized in four different ways: implicit subjective and objective, and explicit subjective and objective forms. Table 4.1, taken from Halliday (1985:336), compares the four different orientations across different types of modality/modulation. The **implicit** forms are the congruent grammatical realizations that I have already outlined for the four types of modality/modulation. Subjective implicit is realized by modal auxiliaries, while objective implicit is realized, in the case of modalities through modal adjuncts, and in the case of modulation through expanded predicators. The **explicit** subjective and objective orientations, however, are realized as grammatical metaphors (Halliday, 1985:332-340). These four orientations combined with the different types and values provide a framework by which to make comparisons across texts between how physicians and women realize modality/ modulation in their speech.

Congruent Forms of Modality and Modulation

To begin with, I will examine modulation associated with the speech functions of offers and commands, followed by an analysis of modalities of probability and usability. Inclination and obligation, as forms of modulation, are realized almost exclusively in these texts by modal auxiliaries. These forms are interpreted then as a subjective implicit orientation and according to the following scale of values: high value modal auxiliaries: *must, need, has to*; median value: *will, would, shall, should*; and low value: *may, might, can, and could* (Halliday, 1985:339).

	Subjective: explicit	Subjective: implicit	Objective: implicit	Objective: explicit
Modality: probability	I think [in my opinion] Mary knows	Mary'll know	Mary probably knows [in all probability]	it's likely that Mary knows [Mary is likely to]
Modality: usuality		Fred'll sit quite quiet	Fred usually sits quite quiet	it's usual for Fred to sit quite quiet
Modulation: obligation	I want John to go	John should go	John's supposed to go	it's expected that John goes
Modulation: inclination	(I undertake for Jane to help)	Jane'll help	Jane's keen to help	it's a pleasure for Jane to help

Table 4.1 Modality by Type and Orientation (Halliday, 1985: 336)

Modulation:Inclination. In turning first to inclination, 24 modulations of this type occur in physician utterances, while only 3 occur in women's speech (Table 4.2). Generally, these modulations represent the intention and willingness of the speaker to carry out an action.

Text B 74 what we'll do then is go ahead and make an appointment with Dr. Smith for you

Text C 23 I'll just listen to the baby

Text A 60 yeah so I'll make a note of that that you want the birthing room

In physicians' speech, there are 10 instances related to physician-initiated action process, as the first example illustrates, and another six are related to activities occurring with physicians' perception processes, as indicated by the second example. The third example is an instance of four offers found only in Text A where the physician's offer for action is tied directly as a response to a women's request or statement.

There are another four examples of offers, however, that are somewhat different. The example below illustrates a physician offer for action that co-occurs with an action causative process:

Text A 21 I'll let you lie down there

This emphasizes the social agency and power as well as the willingness of the speaker to initiate an offer that involves having someone else carry out the action

MODALITY / MODULATION

Table 4.2 IMPLICIT SUBJECTIVE ORIENTATION

Modality/ Modulation	Text A MD:Wn	Text B MD:Wn	Text C MD:Wn	Text D MD:Wn	Text E MD:Wn	Total Combined Texts MD:Wn
Inclination	8 : 1	5 : -	5 : -	2 : -	4 : 2	24 : 3
Obligation	8 : 6	6 : 1	5 : -	4 : 4	5 : 5	28 : 16
Probability	33 : 9	27 : 10	3 : 1	9 : 4	10 : 19	82 : 43
Usuality	-	-	-	2 : 1	1 : -	3 : 1

Modalities of capability co-occur in six out of eight instances with mental processes as the following examples illustrate:

Text B 36 sorry I can't hear you with this stethoscope in my ears

Text A 25 its about this time I can sort of start tah- feel... where the baby's head is

The co-occurrence of the modal *can* with perception processes focuses attention on the physician's perceptual skills in the medical interview. In both instances however, *can* may simultaneously be read as possibility and as capability. The first example is realized as a negative capability/possibility i.e. one is not able to hear or it's not possible to hear with a stethoscope in one's ears. In the second example, the physician's utterance suggests that at a certain point in the pregnancy it is both possible to feel the head and that she more generally has the capability, the perceptual skills to distinguish and feel the baby's head

The following examples are instances of inclination that occur in women's speech

Text E 60 I just- feel it once in a while so I thought I'd ask

Text E 200 I'd rather work

As the first example illustrates, in two instances the modal auxiliary *would* represents a woman's past intention to ask the physician a question - an intention carried out in the interview with this addendum to mark its accomplishment. In the second example, *would* is a more hypothetical realization of inclination. But it is also the only instance where modulation is realized through an expanded predicator, in this case *rather*. These two modulations combined mark the conditional nature of the inclination.

There are 9 clauses in which a modality of capability is realized in women's speech.

Text B 12 I can just tell where the head is
 Text E 146 I can't remember what her name was now

The first example above illustrates four positive instances of capability that occur in Text B in which the woman identifies the position of the baby. Four of the five negatively realized modalities are found in Text E, three of which co-occur with mental cognition processes.

In brief, most inclinations are offers for immediately realized actions by physicians in the interview. And while most are initiated by physicians, four stand alone in Text A in which a woman's statement generates immediate offers by a physician to act by filling out a form. These actions in turn index future actions to be taken at the time of labour. Women's offers for action involve their intention to carry out speech acts requesting information. Not coincidentally then, the women who report these intentions in Text A and E, are the women who ask the most questions during the interview (Table 4.7).

Modulation: Obligation. In turning to examine obligation, there are 28 instances in physicians' speech and 16 instances in women's speech (Table 4.2). What an analysis of these obligations reveal is that both physicians and women self-report obligations to act in their own speech. However, while modulated declaratives are deployed as directives to women in physician's speech, the reverse is not the case in women's speech. Rather, women request from physicians permission or directives for action.

In physicians' speech, 13 utterances are realized with high values of obligation such as *have to* and *need*. The majority of these (10) represent physicians' obligations to act and are particularly prominent in Text A and E:

Text A 85 we may have to get an ultrasound done later

But as the above illustrates, these high value obligations regarding physician courses of action are often tempered with a modality of probability, in this case *may*. There is only one instance in Text D where a general directive to a woman is realized as a high value obligation:

Text D 44 when you're pregnant e: even if you're overweight it's ah or whatever you think overweight is .hhhh uh you still need to eat a lot

Most of the directives addressed to women, however, are realized through median value modals such as *should*. Of the 10 median values then, 8 are directives involving women's actions:

Text D 15 if the baby's asleep you should count the next hour

In addition, there is one utterance that represents blood pressure in terms of obligation:

Text B 36 that's good...110 on 70.... where it should be

Finally, the modal auxillary *can* or its negative form *can't* signify physicians' permission regarding the activities of women and their partners. The following examples illustrate how the modal auxillary *can* functions as a form of permission, while in the previous examples on pages 148 and 149, it functioned as a form of ability/inclination.

Text B 53 you can relax, it's okay

Text A 124 no cause in an emergency where you're under a general anaesthetic and asleep then, then he can't be in the room

Text C 38 you can just take that down to the lab... you can take that there

In the third example, the physician's permission is associated with a double directive for a woman to carry out a multiple predication of action transfer and motion processes. Acts

of permission are generally indicative of the social relations between people. This latter example in particular emphasizes physicians' agency and social power relative to women by an act of permission that initiates a series of actions from the woman, as well as indexing future actions for the woman to be acted upon with tests or procedures.

In turning to women's speech, 6 utterances are realized as high value obligations to act as the following illustrates with the modal auxiliary *have to*:

Text D 54 sometimes I have to take a break. I have to sit down

In only one instance does a woman realize a median value obligation to act with the modal auxiliary *should*. But as the example below illustrates, it is grammatically realized as a polar interrogative thereby functioning as a request for a directive from the physician:

Text D 96 uhm I just finished my uh alterna vitamins.... should I get some more or should I just-

The modal auxiliaries *can* and *could* function in five instances as forms of permission in women's speech.

Text A 39 (I wanted to ask) if there's no problems . with the labour an- everything can I go home the day after ?

Text A 119 if they had to do- an emergency cesarean, I was just readin- Tom can't come in

However, as the above examples illustrate, women are not granting permission. The first example is realized grammatically as a polar interrogative, thus the woman is asking the permission of the physician. The second example is a declarative realized with the negative modulation *can't* in which a woman notes the conditions under which her partner is not permitted into the delivery room. Both examples co-occur with action motion

processes and indicate the social power of physicians in granting permission or directing the actions of women and/or their partners.

There are three instances in women's speech in which utterances represent the obligations of physicians to act. As the following examples indicate, all three involve high value obligations with the modal auxiliary *have to*.

Text A 93 cause if she bleeds they'd have to take it anyway, wouldn't they

Text B 28 you have to excuse my breath

Despite the co-occurrence of obligation with physician actions in women's speech, neither example functions as a directive. The first example is not an addressee oriented directive but a declarative statement about hypothetical obligations of physicians to act. What it does illustrate, however, is how a woman demonstrates her knowledge of physician actions. The obligation of physicians to take the baby is tempered with a hypothetical modality of probability realized by *would*. But by appending a negative tag for confirmation of this statement, it suggests her assumption that the statement will be positively confirmed. As Fairclough (1992: 160) argues, this suggests not only the propositional truth of the statement but is an indication of the social relations of affinity between speaker and addressee. The second example from Text B is the only instance of an addressee oriented modulated declarative spoken by a woman to a physician. However, its co-occurrence with *excuse* tempers this as a directive, in effect making no demands on the physician.

In comparison then, while women's and physicians' self reported obligations to act are realized as high values in their own speech, the median and low values in both women's and physicians' speech involve either directives or permission by physicians for

women to act. This means in the case of obligations concerning women's actions, very often the agent of modulation is not the agent of the process. While in physicians' speech these directives are realized by a modulated declarative, in women's speech they may be realized grammatically by an interrogative form. The reverse however is not the case for obligations concerning physicians' actions. Women do not generally direct or give permission to physicians to act. And the only instance of a directive functions more as a request for permission to excuse.

In brief, modulations indicate social agency and the social relations between people. Inclination marks a person's willingness to act, while obligations involve the granting of permission or directing of others to act. As we have seen, physicians both initiate offers for action and direct women to act, yet there are virtually no instances where women either initiate offers for action or direct physicians to act. This extreme unevenness of social agency in terms of proposals, the exchange of goods and services, is indicative of social relations of power. In turning now to modalities of usuality and probability, we can look at the social identity of, and social relations of participants constituted in terms of the truth value of a proposition.

Usuality: Usuality is predominantly realized in these texts through modal adjuncts such as *always, usually, often, sometimes* and *never*. Physicians typically deploy median values of usuality, *often* and *usually*, which tend to generalize both their actions and construct the typicality of expected signs and symptoms of pregnancy and labour. In contrast to physicians' use of median values, women in these texts use the extreme ranges

of usuality, both high and low values, which function to emphasize their personal experience of pregnancy.

If we look first at physician modalities, there are 47 modal adjuncts and 3 finite modals of usuality (Table 4.2 and 4.3). The greatest proportion of these are realized with a positive polarity (35) and as either a median (26) or low value (7). The following are examples of median values in which the typicality of signs and symptoms and of labour are constructed:

Text E 69 once you've had- one baby often with the second one... that-tissue the perineum (is) more stretchy

Text D 13 but you still should feel it every day

Text A 78 often it- they'll get faster

In the second example, a median value is realized by a modal auxiliary *should*. In contrast to how *should* functioned as an obligation to act on page 150, in this case *should* functions to suggest what is expected as typical in pregnancy. The third example combines a modal auxiliary *will* with the modal adjunct *often*.

Physicians use median values of usuality to modalize their actions emphasizing the expected or typical course of action:

Text B 23 what we usually do is have you see him

Text D 87 we tend tah- watch the baby with a heart rate test- a non-stress test

In the second example, while *tend* is not by definition a modal auxiliary, in this instance it functions as a quasi-modal to construct the action as one that is usual or typical

Table 4.3 IMPLICIT OBJECTIVE ORIENTATION

Modality	Text A MD:Wn	Text B MD:Wn	Text C MD:Wn	Text D MD:Wn	Text E MD:Wn	Total Combined Texts MD : Wn
Probability	8 : 1	4 : 1	4 : -	14 : 1	6 : 5	37 : 8
Usuality	11 : 3	8 : 7	1 : -	16 : 4	11 : 2	47 : 24

While most of these physician modalities function in positive propositions, there are 12 instances where modal adjuncts combine with a negative polarity.

Text E 101 you've never become anemic in this pregnancy

Text A 78 you were two an a half hours last time I guess . uhm . tch it's so- it's not always that way

Text A 147 I don't see that very often actually

As the first example illustrates, 6 instances occur with the high value modality *never*. A high value combined with a negative polarity functions to rule out certain classifications. But there are another 6 instances that combine negative polarity with median and low values of usuality as the latter two examples of *not always* and *not often* illustrate. These examples represent the contingencies of labour and of an unstable breach, and furthermore construct in physicians's speech what is atypical.

In turning to women's speech, there are 15 instances in which women use modal adjuncts of usuality (Table 4.3). The pattern, however, of modal adjuncts is represented by the extremes of range: 8 realize high value modals, four of which are negative, and another 7 realize low value modals.

Where low values of usuality are realized by the modal adjunct *sometimes*, six occur in Text B :

Text B 12 sometimes it's under my ribs .hh and sometimes I can feel it down here

The woman uses a low value modality to represent the frequently changing position of the baby, but it is also combined with *can* realizing a modality of capability. These

linguistic choices demonstrate her competency and knowledge about the position of the baby.

With respect to high value modal adjuncts that occur with both positive and negative propositions, in Text D, where they co-occur with action processes, these function as assertions of a woman's personal actions.

Text D 47 I'm always doing something

Text D 26 I never sit

High value modal adjuncts also co-occur with mental cognition or reaction processes:

Text A 115 I'm always a bit worried about that

Text A 135 I just thought I'd ask if you knew . you never know

Text D 33 but I always consider myself to be like overweight anyway

In the first two examples, the woman uses a modality to mark uncertain knowledge about an unstable breach and her reactions to it. In the third example, the woman uses a modality to emphasize her opinion about her weight.

The use of modalities of usuality within the local historical context of these medical interviews function differently in physicians' and women's speech. In physician's speech, they serve to draw a distinction between what is typical and atypical, and thus they generalize the experience of pregnancy. In women's speech, both high and low values provide a way for women to speak to their individual experience and personal knowledge of pregnancy.

Despite the semantic distinction between modalities of usuality and probability, in turning now to probability, I will draw attention to the connection between the two. The generalization of signs and symptoms constructed in terms of *usuality* enable physicians to deploy modalities of what are *probable* and *possible* signs and symptoms

of pregnancy and labour. Likewise in terms of their actions, the typicality of physician actions forms the basis on which they are able to say hypothetically what they *probably* would do under certain conditions. But probability also serves another semantic function. Given that probability points to, and is therefore indexical to the systems of classification constructed as usual, it is also an indication of the "uncertainty" of the body. The uncertainty of the body lies in its ability to defy the typicality of classifications set up - classifications of a biological body which physicians both produce and take up, yet are forced to mediate with individual variations of a body that always exceed medical systems of classification.

Probability. In terms of probability, I will look at the grammatically congruent forms of probability realized through modal auxiliaries and modal adjuncts. In physicians' speech, there are 82 instances of modal auxiliaries and 37 modal adjuncts of probability (Table 4.2 and Table 4.3). They co-occur with physician-initiated action, perceptual and verbal processes; with action or mental processes where women are positioned as actor or sensor; and with relational and behavioral processes representing the body. The majority of these modalities combine with a positive polarity and are realized either as median values - *will*, *gonna* and the more hypothetical modal *would*, along with the modal adjuncts *probably* and *likely*; or as low values - *may*, *might*, *can*, *could* and the modal adjunct *maybe*. As noted previously, these modal auxiliaries function semantically as both modulations and modalizations. Interpretation is therefore dependent on their meaning in a particular context of use.

The most predominant modalizing co-occurs with physician-initiated action, mental and verbal processes. Out of 50 utterances, 35 realize median values.

Text B 84 so he'll tell that to you ah at the time what he thinks his chances are

Text A 50 I'm gonna be away

Text B 15 one of the approaches to a breach, at this point in your pregnancy at this time .hh would be to have someone try and turn the baby from the outside

The first two examples demonstrate how in 15 clauses both *will* and *gonna* represent the stated likelihood or probability of physicians to carry out future actions. While the modal auxiliary *will* previously functioned as a modulation of the inclination type indicating the speaker's willingness to act, it functions differently in this context. As a proposition about the actions of a third party, it expresses the probability of this action to occur with a high degree of certainty. However, as the third example illustrates, in 13 clauses when physician actions are represented as hypothetical options, the modal auxiliary *would* is realized.

Another 7 clauses indicate different ways in which the probability of physicians' actions are represented, combining in some cases a modal adjunct *probably* with a modal auxiliary:

Text A 95 yeah if I guess if she has a really- serious- bleed . u:hm you know where it's life threatening to her an the baby then yeah they'd probably have to [take the baby]

Text D 87 if you uhm pass your due date we probably would [do an internal]... just to get something going.. sometimes by stretching your cervix a little bit but .hh uhm...

Text D 95 but... there's probably not much point doing it now

And as the first two examples illustrate, where a modal adjunct is paired with the modal auxiliary *would* the effect is to foreground the likelihood of a hypothetical action under given conditions. In the first example, this is further strengthened with a high value obligation *have to*. The second example illustrates the relationship between usuality and probability. An action that physicians *sometimes* do under certain conditions, forms the basis on which they may say what they *probably would* do. The third example illustrates how the physician in Text D combines a modal adjunct *probably* with an impersonal fact to indicate a negative offer for action.

There are another 15 physician-initiated action and mental processes that occur with low value modalities.

Text C 38 okay well the only thing is.... might wanna check your uhm haemoglobin

Text A 85 if it was a breach or something we'd maybe have tah- worry about

Text A 25 its about this time I can sort of start tah- feel... where the baby's head is

In the first example, a low value modality *maybe* co-occurs with a physician-initiated action process. While it suggests the tentativeness of a proposed action, this tentativeness is superseded in the subsequent utterance when an immediate directive for the action is issued. In the second example, the modal *would* is combined with a low modal value adjunct *maybe*, the effect of which is to foreground the conditional possibilities of worrying if the baby were to be breach. Finally the third example, as we have already seen in modulation inclination, illustrates the semantic overlap between *can* as a modal of possibility and of capability

Aside from physician-initiated action and mental processes, there are a range of utterances in physicians' speech in which modalities of probability co-occur with action, mental and relational processes involving other participants. In 10 instances these utterances involve representations where women are actors or sensors.

Text E 143 a you'll really like her

Text D 105 a if you have those days when just- you know... craft dinner
er some(hhh)thing is all you can manage

Text D 103 it probably doesn't hurt to take a vitamin ...while your
breastfeeding

Text B 21 b it might mean- have- seeing Dr. Smith

The first example above illustrates how in two instances a median value *will* co-occurs with a mental reaction process in which the physician suggests the likelihood of a woman's reactions to a covering physician. The second example again suggests an overlap between capability and possibility with the modal auxiliary *can*. The final two examples illustrate the modalizing of impersonal noun facts which function as directives. A simple noun fact in which there are no verbal sayers or sensors projects a clause that positions the woman implicitly as actor in an action process. Three of these directives co-occur with low value modalities, as the fourth example illustrates, indicating the hesitancy or tentativeness with which the physician introduces the directive.

The final group of utterances that I will illustrate from physicians' speech involve modalities that co-occur with 33 relational processes. Locational processes generally involve future tests and appointments. They are most often modalized with a median value *will* representing a stated intention for these future events to occur:

Text E 137 yeah probably around three weeks, it'll be three weeks

While the above clause begins with a modal adjunct *probably*, the physician shifts to a more definite statement of when the future action will take place. In contrast to the more definite statements regarding tests and procedures, the classification of women, babies and labour, tend to co-occur with modal adjuncts, with the hypothetical modal auxiliary *would* or with low value modals *can* and *could* which emphasize more tentative statements:

Text A 134 so- you know maybe if she'd had a smaller baby, she would've been- been okay

Text A 47 you can have some (pain in the lower part from distension)

Text D 91 chances are you...tch could well have the baby by then

Text D 82 probably be more .. a more effective . like- a more normal labour

Similarly, where modalities co-occur with action and behavioral processes which represent the body, these also tend to be more tentative or hypothetical statements of modality.

Text D 108 now some of these things will change depending on if the baby's breach or .hh head down by this- time in a couple of weeks

Text A 104 she'd only be about twenty-three twenty-four weeks so the baby right- now- wouldn't survive

Text B 104 and that might happen again

Text D 72 maybe that's one of the reasons you're getting lots [of tightening]

The first example, while realizing a median value *will*, is set within a circumstantial process which infers a more conditional inflection to the modality. The second example illustrates a hypothetical statement of modality. And the final two examples are of low

value modalities. These utterances involving relational, action and behavioral processes represent physicians' attempts to outline the probable or possible signs and symptoms of pregnancy or outcomes of labour, but modalized in a way that foregrounds the uncertainty or hypothetical nature of the assertion.

In turning now to women's speech, there are 43 instances of modal auxiliaries and 8 modal adjuncts of probability (Table 4.2 and 4.3). When women modalize actions, there is a general tendency for these modalities to occur in concentrated numbers which emphasizes the specific nature of the event being modalized. Of the 24 clauses in which women position themselves as actor or sensor, 11 are realized as median values and in three instances realize a double modality.

Text E 194 well the 29th if I- hh last that long I'm gonna work right up . so: cause I figured- if I'm at home I'm gonna be .hh waiting . an then I'll probably be more anxious so I'd rather work .hh an I'll probably- I have to take some of my holidays so: . I'll take maybe a day a week or something

Text B 22 It would be worthwhile, I would guess.

The first example is a short passage from Text E in response to a physician's question regarding work. The concentration of median values - *will*, *gonna* and *probably*, in this passage represents the majority of median values of probability that occur in the speech of women. And as the second example illustrates, the 3 instances of *would* as a hypothetical modality are indexical to a physician's information giving or offer.

And another three clauses realize low value modalities of possibility.

Text A 42 cause I might as well be home (really)

In the above example, the woman's proposal to be at home is tempered by the use of a low value modality *might*, which may be interpreted as a "hedge" signifying the unequal relations of participants.

In women's speech, when modalities co-occur with physician actions, they may take the form of requests for information either with Wh-interrogatives or as a statement with a tag question, as the following examples illustrate.

Text A: 90 she stopped [bleeding] but if she does it again they are gonna take the baby . but they're gonna wait til the end of February. Well why would they wait til-

Text E 66 and th- for an- if you have to- you probably have to do an episiotomy again, right ?

In the second example, the woman begins the statement with a conditional obligation signified by her use of *if* and *have to*. She then shifts semantically to a less conditional formulation of the question by adding the modal adjunct *probably*. This signifies a semantic shift to a question about the likelihood of the physicians' obligation to act

There are also 11 instances in which women's use of modalities demonstrates their knowledge about hypothetical conditions.

Text A 138 that doesn't mean it's gonna it'd stay head down though, does it ?

Text E 127 I just wondered if it (had dropped at that point the) you know if it was going to that probably would have been the time

The above examples illustrate women's knowledge with respect to breech babies and the movements of haemoglobin. In the first example, the woman shifts from *gonna*, a more definite modality, to *would* a more hypothetical realization of probability. In the second example, a modal adjunct *probably* is combined with *would* to emphasize the probable

timing of an event. Women's ability to generate hypothetical statements of probability concerning the body signifies their ability to enter into the probabilistic classification systems of biomedicine. While in the first example, this serves to demonstrate the limitations of these classification system, the second example demonstrates how in taking them up, women are positioned as a subject dissociated from the body.

Probability thus serves a number of functions in physicians' as well as women's speech. Its co-occurrence with relational, action and behavioral processes about the body and with physician-initiated action processes serves to index and reproduce classification systems of what is 'normal' or typical of a pregnant body. At the same time however, probability foregrounds the uncertainty and tentative nature of the assertions regarding the unpredictability of the body.

Interpersonal Grammatical Metaphors

Just as there are ideational grammatical metaphors, so too are there interpersonal ones. The transformation of interpersonal meanings from their congruent grammatical form as a modal element in the clause into other grammatical forms constitutes the **explicit** subjective and objective orientations. I will first turn to the subjective form, all of which realize grammatical metaphors of probability; and then to the objective form which realizes both probability and usuality.

Subjective Explicit: Of the 41 grammatical metaphors realizing a modality of probability in the subjective form, the majority (32) occur in physicians' speech (Table 4.4). In all texts, physicians use this particular form of modality during the examination when

locating the position of the baby or heart beat, or when commenting on the likelihood of the baby's size.

Text D 74 it's way back there I think

This example illustrates how a mental cognition process *I think* projecting the clause *it's way back here*, is not itself a separate proposition but the speaker's opinion about the proposition (Halliday, 1985:332).

Text E 31 yeah I think the baby's definitely head down there

Text D 82 I would suspect it would be around nine pounds

While almost all values of this orientation are realized as *I think* or *I guess*, as the above examples illustrate, the metaphorical realization is often combined with other congruent forms of modality. In the first example, the explicit form is combined with *definitely* a high value modal adjunct, shifting the proposition to a high value of certainty. In the second example, *I suspect* is combined with two modal auxiliaries *would*, giving it a more hypothetical intonation.

While all instances of this orientation in physicians' speech realize median values, the majority of which are a positive polarity, there are three in contrast that realize a negative polarity.

Text B 47 I don't think doing a vaginal exam would be helpful

These negative instances occur either as a negative offer to carry out an action as the above illustrates, or the negative probability of there being a problem. And while there are instances where physicians deploy these metaphorical forms more broadly when talking about next visits and the actions and locations of physicians, they are generally

INTERPERSONAL GRAMMATICAL METAPHORS
Table 4.4 EXPLICIT SUBJECTIVE ORIENTATION

Modality	Text A	Text B	Text C	Text D	Text E	Total Combined Texts MD : Wn
	MD:Wn	MD:WN	MD:Wn	MD: Wn	MD:Wn	MD : Wn
Probability	13 : 3	8 : 3	3 : -	3 : 1	5 : 1	32 : 8

• •

associated with the immediate concerns of the interview at hand, the examination and classification of the baby and woman.

Similarly, in eight instances, this subjective form occurs in women's speech in relation to the movements and location of the baby, the location of physicians, and women's due date.

Text B 16 but it'd just turn back right now, I'm sure

The above example by a woman is the only instance in which a high value is deployed for this orientation. It stands as an affirmation of the woman's certainty regarding her own knowledge of the baby.

Objective Explicit: Of the 18 modalities realized in their objective metaphorical form, all occur in the speech of physicians either as modalities of probability (9) or usuality (9) (Table 4.5). There is, however, a great deal of variation among physicians in their use of this form of modality. The physician in Text A accounts for nine instances, while the physician in Text D accounts for another four.

The objective metaphorical form also realizes a projecting clause relation. As we have seen in Chapter Three, these are the impersonal fact 'chance' nouns. These are clauses in which a fact is projected impersonally without a sensor or sayer. Typically, the projecting clause is a relational attributive process and functions to modalize the proposition (Halliday, 1985:244).

Text A 134 it's very unlikely that you'd have a- cesarean

Text A 116 it looks like it's a big baby

Table 4.5 EXPLICIT OBJECTIVE ORIENTATION

Modality	Text A MD:Wn	Text B MD:Wn	Text C MD:Wn	Text D MD:Wn	Text E MD:Wn	Total Combined Texts MD:Wn
Probability	6 :-	2 :-	-	-	1 :-	9 :-
Usuality	3 :-	1 :-	-	4 :-	1 :-	9 :-

In turning first to probability, as the first example above illustrates, 6 instances of median value co-occur with propositions realizing a negative polarity. These utterances occur with discussions about the probabilities of having a cesarean section, an unstable breach, or the need to have a transfusion, and thus foreground the unlikelihood of these actions occurring. The second example illustrates an instance of positive polarity. The positive metaphorical forms refer more generally to the size or motion of the baby at the time of examination or to signs and symptoms.

In terms of the modalities of usuality, all realize median values with a positive polarity. They are used to emphasize the typicality of expected signs and symptoms of pregnancy:

Text D 87 it's quite normal to go: uhm over your due date

Text D 71 it tends to be more common when you're busy

Physicians use these objective forms of modality to address general contingencies of pregnancy. Modalities of probability when combined with a negative polarity suggest that physicians interventions are unlikely. And the general expectations regarding the typicality of signs and symptoms are realized through positive, median values of usuality

Personal Deixis

Personal deixis is often examined in association with the textual metafunction. Following from the work of Thibault (1988), I will consider its implications in terms of the interpersonal metafunction. Within these interviews both physicians and women as speakers are interactionally constituted as *you* and *I* in relation to a speaker/addressee relationship. Table 4.6 shows that both women and physicians are constituted discursively

as *I*, but there, however, the similarity ends. This suggests that personal deixis realizes more than simply a relation referencing speakers and hearers as addresser/addressee (Thibault, 1988). What I will examine is how personal deixis indexes more broadly (and in relation to other linguistic and implicit contextual features) the structures of knowledge and power within which these speakers are discursively positioned.

While physicians use the personal pronoun *I* in constituting themselves as information and advice givers, they also use other available linguistic resources that women do not.

Physicians frequently use the first person plural pronoun *we* or its oblique form *us* for information/advice giving.

Text E 101 ...and in pregnancy we often see it drop

for immediately realizable directives and offers.

Text D 73 okay we'll get you to come up here

Text B 13 we'll check and see what position the baby's in right now

and for hypothetical directives and offers.

Text B 114/116 if it was more than a period then call us

Text A 116 then we would try and deliver it vaginally

In the above examples, there is semantic variation among the various uses of *we*. In the first example, *we* indexes the medical profession in general as authorized speakers of a clinical gaze. In the second example, *we* refers more specifically to *I*, the physician who initiates an action causative process. The third example is more ambiguous. It may refer simply to the physician as an initiator of an offer for action, or as I will suggest below to a joint relation of physician and woman. The final two examples index a more

Table 4.6 PERSONAL DEIXIS

	I	We (MD)	We (Jk Woman & MD)	We (Jk Woman & other)	You (Specific)	You (General)	They/Them (MD)
Text A MD Wn	36 24	9 -	3 -	- 2	29 8	9 1	4 8
Text B MD Wn	27 23	14 -	9 -	- 3	38 7	6 -	2 2
Text C MD Wn	11 2	2 -	- -	- -	- -	3 -	- -
Text D MD Wn	9 35	7 -	- -	- -	48 1	22 1	- -
Text E MD Wn	17 45	13 -	- 2	- 3	28 8	7 -	- -

condensed set of relations among a known group of physicians sharing obstetrical practices.

In Text B, the use of *we* appears to index a joint relation of physicians and women. The first example below illustrates a joint obligation, while the second illustrates a suggestion:

Text B 25/27 we should decide today what position we think the baby's in for sure

Text B 141 let's go ahead and set up an appointment with Dr. Smith

In constituting women as *you*, physicians also realize a greater range of resources. While in the majority of instances they address women within a speaker/addressee relation using the specific pronominal form of *you*, there are instances in all texts when *you* indexes a more universal form.

Text A 109 well if you've had one or two premature babies previously you're more likely to have another one so:

Text D 84 going over one week is quite normal if if you did.... ah more than that we tend tah- watch the baby with a heart rate test

Text E 105 we don't really like- you to have a low hemoglobin at the time of delivery

Text B 23 what we usually do is have you see him

And while these non-specific, universal forms of *you* may overlap with the more specific addressee form of *you*, the use of the pronominal first person plural *we* indicating the medical profession in general, as well as modalities of usuality and probability signify a more universal indexing of the personal deixis *you*.

In turning to women's speech, women are constituted as *I* across all texts, although minimally in Text C, but very rarely employ the pronominal first personal plural *we*. When they do, it is generally in reference to a set of familial relations - partner or son (Text A, B, E), or in reference to work related relations (Text B). Only in Text E are there two instances in woman's speech of a joint physician/woman relation:

Text E 112 did- we did bloodwork and stuff then ?

Text E 174 so we'll see

In the first example, the woman's use of *we* as discussed with respect to transitivity analysis indexes more generally the action practices of physicians. In the second example, the statement is tied to the woman's "feelings" about the imminent birth and her indexing of *we* is at best ambiguous. The disjuncture then between physicians' and women's use of *we* to index a joint relation foregrounds how *we* in fact indexes the conceptual strategies and practices of biomedicine, as well as the medical profession more generally as authorized speakers.

Woman also constitute physicians as *you* mostly in Texts A, B, and E. With the exception of one instance, all index *you* in a specific form as addressee.

Text A 86 there's something I wanted to ask you

Text A 115 do you try to deliver a breech or do you- do you do a cesarean ?

Text E 66 a and th- for an- if you have to- you probably have to do an episiotomy again right ?

As the above illustrate, these utterances position physicians as the primary knower of information giving and action processes. There are also instances in both Text A and B

where women use the third person pronominal form *they* to refer to the actions and sayings of other physicians:

Text A 119 if they had to do- . an emergency cesarean

Text A 129 they said her pelvis was too small

Thus the second and third person pronominal forms used by women generally index the same set of conceptual practices realized as action and verbal processes. The one exception to this is found in Text A:

Text A 135 I jus thought I'd ask if you knew . you never know

In this instance following a discussion about the probability of having a cesarean section, the woman appends to the discussion a comment in which she first constitutes the physician as addressee in a relation of primary knower. But given the probabilistic nature of the information giving, she then indexes *you* more generally to both the physician, herself and as a general statement about the body.

In these comparative patterns of personal deixis, it appears that while physicians shift between specific and universal forms of personal deixis, women more generally limit their use to the specific, particularistic forms within the speaker/addressee relation. The *I/we/they* of physicians indexes more generally the dominant discourse, the structures of knowledge that we have seen throughout the transitivity patterns in which physicians realize their actions on the body of the other, a physical body of biomedicine devoid of intentionality. And the universal *you* spoken by physicians which constitutes pregnant woman as a group, indexes a self whose body is naturalized as an object, frequently assumed but absent, positioned outside of representation.

In women's speech, the particularistic form *you* and the third person *they* index the dominant discourse of biomedicine -- the conceptual practices realized in particular grammatical patterns of transitivity and ergative structure. The *I*, however, spoken by women indexes a disjuncture of the self. Where the *I* is positioned as distanced from an externalized or absent body, as in the action affective, transfer and resultative processes, it is structured by its identification with the dominant discourse as a disembodied self. But on other occasions the *I* is realized as marginal to the dominant discourse - indexing other grammatical forms of self-representation such as relational attributive, and mental cognition and perception processes.

Discourse Organization

In turning now to an examination of these texts with respect to speech functions and social activity structure, I want to show how these interviews provide a spectrum of intervention by women in the generic structure of the medical interview. Physicians clearly control certain aspects of the interview. In the beginning sequence they initiate a sequence of questions establishing classifications of weight, number of weeks pregnant, and the movements of the baby. Through offers and directives which function as announcements for a transition to the examination phase, they establish a sequence of activities such as checking blood pressure, checking the position of the baby, and listening to the baby's heartbeat. Either before or after the examination phase, physicians initiate a review of tests with questions and statements which in turn lead to directives for future action. And they control the end sequence of the interview with the announcement of next appointment. Moreover, throughout the interview, they control the exchange of

information by holding the floor with long series of declarative statements. Thus there is clearly a pre-set agenda of topics to be established and activities to be accomplished within a 15 minute appointment which constitute the generic structure of the medical interview. Yet there are many instances where women through the use of both questions and statements actively participate in establishing topics and in moving discourse forward across speaker exchange boundaries.

Speech Functions and Social Activity Structures: If we look at speech functions in Table 4.7, all physicians use a substantial number of questions ranging from the lowest at 10 in Text E to a high of 18 in Text C. Women's use of questions is more uneven. Women in Text B, C and D initiate relatively few questions, while women in Text A and E initiate 9 and 19 questions respectively. Although questions are an important resource for establishing topics and controlling discourse, I will examine how both questions and statements by physicians and women function in these texts, as well as the offers and commands of physicians. The transcripts for Texts A through E are found in Appendix C, with the transcription conventions in Appendix B. To begin with then, I will look at Text C, the text in which the highest number of physician questions are registered while none are asked by the woman.

Text C. Table 4.8 shows that questions initiated by the physician in Text C are realized by the grammatical range of polar, Wh-interrogatives, tags, as well as declaratives with a rise in intonation. On reading through the transcript, it is evident that the woman makes few interventions and her response to questions are mostly either affirmative or

Table 4.7 SPEECH FUNCTIONS

Speech Function	Text A MD : W	Text B MD : W	Text C MD : W	Text D MD : W	Text E MD : W
Question	13 : 9	15 : 3	18 : -	18 : 2	10 : 19
Offer	6 : 1	5 : -	2 : -	1 : -	1 : 2
Command	3 : -	17 : 3	6 : -	12 : -	1 : 2
Suggestion	-	3 : -	-	-	-

negative responses. While there are a number of pauses and transition points throughout the interview where the woman could intervene, she does not. As Fairclough (1992) suggests, silence or failure to elaborate is itself indicative of power relations. It can mark the uncertainty of the less powerful participant to engage in the discourse of the expert. Moreover, as Frankel (1990) and Mishler (1984) suggest, it indicates a deference structure whereby a person learns not only when to ask questions but also what is relevant to the medical interview. These then are constituent elements of knowledge and of social identity that a person may bring to the medical interview. But if we think of the medical interview in terms of its constitutive nature in reconstructing social identities and social relations, it's important to examine how these physician initiated questions and statements might function to further that end of unequal social relations.

The Wh-interrogative questions, of which there are five (Table 4.8), are generally the most open ended type of question. These are found in the text in lines 1, 15, 24, 34 and 42. Two of these are very content specific, 15 and 42, the latter of which the physician herself answers. Of the other three, only 24, a question regarding the woman's son, elicits an extended response from the woman. And the physician, busy doing an examination, does not acknowledge the response but offers a statement about the woman's uterus, establishing a different topic.

There are three polar interrogative questions at lines, 7, 13, and 21 which function to elicit a simple yes or no response. After the woman's response to the first polar interrogative at line 8, the physician offers a follow-up statement and then holding the floor, shifts to a new topic establishing the number of weeks of pregnancy. After the

Table 4.8 GRAMMATICAL REALIZATIONS OF QUESTIONS

Questions	Text A M:Wn	Text B MD:Wn	Text C MD:Wn	Text D MD:Wn	Text E MD:Wn
Polar Interrogative	5 : 5	7 : 3	3 : -	8 : 2	4 : 9
Wh-Interrogative	2 : 2	2 : -	5 : -	2 : -	3 : 8
Tag	1 : 2	4 : -	7 : -	4 : -	3 : 2
Declarative	5 :	2 : -	3 : -	4 : -	1 : -

second polar interrogative question and answer sequence at lines 13 and 14 followed by a pause, the physician initiates a Wh-interrogative at line 15 to which the woman offers a slightly more elaborated response. And while the physician then acknowledges that response with a comment and tag for confirmation at line 17, she then immediately shifts at line 19 to establish the activity of taking blood pressure. In the case of the third polar question, the physician provides a commentary and opinion about the women's weight gain prior to asking the question at line 21. The women's negative response is followed up with a summary statement about weight gain with the physician re-establishing the activity of taking blood pressure.

In three instances, declaratives occur with rising intonation indicating questions. Of these, the two at line 9 and 11 function as a way for the physician herself to provide the information while holding the floor to give more information through a series of declarative statements. Only the question at line 5 as an extended sequence elicits an elaborated response from the woman. Similar to her other extended response, this question and response sequence does not concern her pregnancy but the removal of a cyst.

The majority of these polar and Wh-interrogative and declarative questions occur in the first half of the interview. Tag questions, however, are more predominant in the latter half of the interview at lines, 17, 32, 42 and 46. These generally function to elicit a response of confirmation from the respondent although at lines 42 and 46 the physician holds the floor with a series of statements. Thus while the woman generally does not elaborate her turns in the interview, this pattern must be understood in relation to the physician's pattern of controlling discourse organization. The physician frequently does

not allow the space for the woman to elaborate a response to a question but holds the floor with declarative statements. And when she does allow for a response, her follow-up commentary to the woman's responses are typically followed by a shift to a new topic or establishing an activity. The social activity structure that emerges is one in which the physician takes turns through asking questions, or through holding the floor with a series of declarative statements. And in doing so, she determines the woman's turns with the woman responding only when offered a turn. The one exception to this occurs at line 39 when the woman in response to a directive to take an order form to the lab, registers the comment "more needles". The elliptical nature of the comment diminishes its impact as perhaps a protest. The physician acknowledges the comment and after a pause, shifts to a new topic regarding the next appointment.

There is then clearly the sense of a pre-set agenda borne out by comparison with other texts in which the physician establishes certain pre-set topics and activities which progress discourse forward through questions, statements, offers and directives. For the most part, the questions established by the physician are very content specific. And when at line 34 the physician asks one of the more open-ended questions regarding concerns or questions, this is still a "problem" oriented question rather than a more inclusively open ended question. The one diversion from the pre-set agenda is a brief personal narrative by the physician referring to her own pregnancy embedded in the extended sequence at line 34.

In contrast to the social activity structure of Text C where the woman takes turns only when offered at points determined by the physician, the remaining four texts provide

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a broader range of activity structures. All texts feature physician control of discourse through long strings of declarative statements and directives, and their control in re-establishing a pre-set agenda with statements, offers and commands. However, the social activity structure is not simply a matter of physicians determining women's turns and women taking turns when offered. Women actively take turns through the use of both questions and statements, and in doing so they position physicians as respondents. They particularly use the transitional points in the generic structure of the interview both before and after the examination phase and after the announcement for next appointment to initiate topics. Furthermore, they jointly develop topics with physicians to progress discourse forward across exchange boundaries. In turning first to Text D, I will examine how the woman participates in the joint development of physician initiated topics

Text D. While the woman in this text initiates few topics, she jointly develops physician initiated topics in several ways. First, through her use of interruption and overlap of talk, she actively asserts control of the turn-allocation system, a feature of discourse organization. And second, by actively taking a turn she offers information with declarative statements. The significance of her self-positioning in the turn taking system must be understood in terms of her positioning with respect to the regulation of meanings made through biomedical discourse. Her individual knowledge and experience of pregnancy is held up to the standards of a normalizing biomedical discourse, and it is that within and against which she is positioned. Through actively taking turns and in some instances interrupting the physician to control discourse organization, she offers self-

representations marked by high value modalizations and modulations that establish the legitimacy of her knowledge.

The interview begins with a series of questions and the establishment of two topics prior to the initiation of the examination phase. The physician establishes a sequence of questions at line 3, 7 and 9. And the woman in response to the question at line 9 offers an elliptical statement but appends to this a negative polarity of "not knowing" at line 10. The physician responds to this as a request for information giving and issues a series of declarative statements along with directives for action realized in a variety of grammatical forms at lines 13 through 19: as two impersonal noun facts at line 13; imperatives at lines 15 and 17 and 19; and as modulated declaratives at line 15. The woman in response to this information, issues a declarative statement at line 20 affirming the movement of the baby. The physician acknowledges her comment and then, holding the floor, shifts topics to weight gain at line 21.

The physician initiates the topic of weight gain through two declaratives statements in effect offering information but with an appended tag for confirmation which the woman responds to at line 22. At line 23 the physician, in a halting and unfinished statement reviews the woman's weight gain. The woman interrupts with an assertion at line 24 marked by high value modalities of certainty and usuality. While the physician in an overlapping statement acknowledges this information at line 25/27, she's seeks further information by asking a series of polar interrogative questions at line 28 which are quite specific; and a more general and extended polar interrogative again at line 30.

The woman responds to these probes with a negative reply. At line 31, however, she offers a brief series of declaratives in which she responds with a negative polarity of "not knowing" while reporting the speech of another physician to support her position. The physician acknowledges this information but the woman interrupts at line 33 with another assertion marked as a high value modality. When the physician clarifies the woman's assertion with a statement at line 34, the woman in turn specifies her assertion with providing more information at line 37. The physician's response at line 38 issued as a low value modality and a declarative question suggests that she is not in full agreement with the women's assertion. And when the physician initiates a statement at line 40, the woman interrupts with another assertion at 41 that she repeats again at line 43.

The physician acknowledges this information at line 42 but goes on to issue directives at lines 44 and 44 realized respectively as a high value modulated declarative and an impersonal noun fact adding the weight of objective authority. She tempers this, however, with a statement recognizing the difficulties of what she is advising. The woman at line 45, 47 and 54 follows up this sequence with a short series of declarative statements with high values of certainty, usuality and obligation that underline the strength of her assertions. And the physician acknowledges these assertions with a brief series of statements beginning at line 55 with a compliment and finishing at line 61. She then shifts to the examination phase of the interview by initiating and announcing the activity of taking blood pressure

Following the examination phase, there are two further physician initiated topics, and intertextually the discussion returns to the discussion on eating. The physician

initiates a new topic about the woman's due date with a statement at line 85 indicating a negative offer. She then extends her turn at lines 87 and 89 with a series of declaratives outlining hypothetical offers for action that are modalized by median values of usuality to emphasize the typicality of these actions. She ends with a statement of probability about the baby's due date at line 91 to which the woman responds at line 92. The physician does not respond to the woman's statement but rather at line 93 initiates a new topic with a polar interrogative question about a urine test. She then holds the floor by extending her turn with a series of declarative statements reviewing haemoglobin.

The woman in response to this information giving shifts the topic at line 96 with a question about whether or not she should buy more vitamins. The physician responds with a series of declarative statements of information giving from line 97 to 103 at which point she issues an impersonal directive providing the woman with an option between taking a vitamin or just plain iron. Intertextually this returns to the issue of eating, the focus of much attention at the beginning of the interview. While the physician's comments at line 105 most probably refer to the difficulties of managing a new born and taking care of oneself, the woman at line 106 interprets this in light of the previous discussion about her eating habits. At lines 106 and 108 she issues a series of short declarative statements stressing the typicality of her habits marking her intentions to eat. The physician acknowledges her statement at line 109 and then holds the floor to shift to the topic of a next appointment.

This text demonstrates what is probably the most overt sense of resistance by a woman to the normalizing effects of biomedical discourse. The physician's questions and

statements, as well as proposals for action regulate the organization of discourse. And in doing so, the physician also regulates the meanings of pregnancy through the deployment of modal adjuncts of usuality and probability, as well as directives issued through high and median value obligations and impersonal noun facts. These position the woman in terms of what she should know and do, and furthermore call upon the woman to account for her relatively small weight gain. The woman in accounting for herself, however, takes an assertive stance as evidenced by her interruptions and the assertive intonation of her information giving with high value modalities. And in doing so, she actively positions the physician to respond to the legitimacy of her personal knowledge.

In turning to the remaining texts, I will look at how women not only develop discourse, but also how they initiate topics.

Text B. In Text B, the woman establishes topics in a variety of ways primarily through her use of statements. In the first instance, a topic is jointly established through a question and answer sequence. But the woman also uses transitional points in the generic structure to initiate topics both before and at the conclusion of the examination phase. And if women use these transitional spots, then this text also demonstrates once again how physicians work to re-establish their control of the generic structure by holding the floor with long series of declarative statements, with offers and directives, and with summary statements.

Similar to Text C and D, Text B begins with a string of question and answer sequences initiated by the physician at lines 1, 5 and 7. In response to the question at line 7, the woman establishes the topic of a breach position with a short sequence of

declarative statements at lines 8 and 10. Responding to that information, the physician asks a clarifying question at line 11 and the woman elaborates her response with a series of declaratives at line 12. It is a heavily modalized response in which through information giving, the woman establishes legitimacy regarding her knowledge of the baby's position.

The physician at lines 13 and 15 responds to this information with an immediate offer to check the position of the baby, as well as a hypothetical offer to have it turned from the outside. The woman however at line 16 issues a modalized statement with high value certainty that in effect questions the efficacy of the offer. The physician acknowledges her comment at line 17 and modifies the offer, hedging slightly with low value modalities. She then ends her turn by adding an impersonal modalized (low value) directive for seeing Dr. Smith at line 21. The woman at line 22 in response to this information acknowledges, although with less certainty marked by multiple median values of probability, the usefulness of the offer. Having secured the woman's consent, the physician then makes a series of declarative statements outlining the typicality of actions, and ends with an obligation to check the position of the baby at line 25/27. Having held the floor, she then shifts topics by announcing a suggestion to take blood pressure.

In this activity sequence the woman through a series of statements has not only established the topic of breach, but also through discourse exchange established her knowledge and competency regarding the future uncertainty of the baby's position. And in response to this, the physician hedges both her offer and the directive for action with low value modalities. The conclusion of this sequence marks a transition point in the generic structure and the struggle to establish boundaries between the medical interview

genre and a conversational genre. As I will show, physicians control the transitional shifts with offers and commands for action, but in doing so these function as announcements which women then strategically use to establish their own topics. In turn, physicians work to re-establish their pre-set agenda of activities.

At the end of the previous sequence the physician has made a move typical across all interviews. Following a sequence of information giving and offers or directives for future action, the physician holds the floor issuing an offer or command to shift to the examination phase. In this case, at line 27 the physician announces the transition point with a suggestion to take blood pressure. And with this announcement, the woman takes the opportunity at line 28 to initiate a conversational genre and the topic of bad breath with a modulated declarative. Following a brief but interesting conversational side exchange in which the physician and woman share information as pregnant women, the physician re-establishes control with the actual activity of taking blood pressure at line 36. And this is immediately followed by a shift in activity announced by the command to come to the table.

As I suggested, the conclusion of the examination phase also marks a transitional point where women establish topics. Again it illustrates how women use statements to establish and jointly progress discourse, while physicians control discourse organization through information giving sequences, offers for action and summary statements. Following the activity of checking the position and size of the baby, the physician shifts at line 51 to the activity of listening to the heart rate. At line 53 she announces the end of the activity with a modulated declarative which functions as a directive to the woman

to relax. As a marked transition point, the woman takes the opportunity to initiate a series of statements establishing the topic regarding her signs and symptoms at lines 54, 56 and again at 59 despite the physician's attention on recording information at line 58. The physician in response to the woman's last sequence of information giving, asks for clarifying information through two question and answer sequences at lines 60 through 63. In response to this information, the physician offers information through a series of declarative statements with the woman intervening at lines 65 and 71. The woman's information giving while brief, functions to progress discourse with the physician acknowledging this information at line 66 and responding to it with more information.

At the end of this particular activity structure comprised mostly of information giving by both the woman and physician, the physician takes back the floor at line 74 by re-establishing the earlier offer to make an appointment with Dr. Smith. The physician in holding the floor then initiates a long series of declarative statements giving information about Dr. Smith's actions which continues until line 92. The woman's only intervention comes at line 87 in which she interrupts the physician to make a comment in response to the information that Dr. Smith underestimates his abilities. The physician briefly acknowledges the response at line 90 and continues her sequence of information giving ending with a tag question to elicit confirmation which the woman gives at line 94. The physician with a summary statement at line 95 enacts closure on the topic, and then, holding the floor, shifts to a new topic regarding when to call.

In brief, Text B demonstrates how despite women's use of transitional points in the interview structure to initiate topics, physicians are able to control discourse through

strings of declaratives, summary statements and set of activities and topics that they work to re-establish and accomplish through offers, suggestions and commands. I also demonstrated however, in the preceding Texts B and D, that there are instances where women use declarative statements to establish and develop topics. The activity structures of these information giving sequences are not then simply ones in which women are offered positions, but rather ones where women actively take turns and position physicians as respondent.

In turning to Texts A and E, these two texts provide a contrast to the previous texts in the way women intervene to establish topics and develop discourse. Table 4 7 shows that the women in Text A and E ask nine and nineteen questions respectively. Thus they combine questions and statements as a means to establish and develop topics across speaker exchange boundaries. Like the women in Text B however, these women also know the generic structure of the interview and use transitional points to establish their topics.

Text A. The following example from Text A illustrates how the physician's announcement for next appointment functions as an important transition point for women to make requests and establish new topics. Moreover, this text allows us to examine linguistic features that suggest changing social identities and social relations of women and physicians. The woman makes statements that function as requests for services, controls the turn-taking system through interruptions, and manipulates the mood system with both questions and statements to position the physician as respondent. These features all suggest the woman's social agency and power. And there is evidence to suggest this

is linked to the woman's ability to display her own knowledge about pregnancy and labour that enables her to enter into the classification systems of biomedicine and reveal their limitations. Yet these features which suggest social relations of affinity also combine with a social identity of deference. The woman's requests for services and information are frequently preceded by an announcement, as well as a reason, for request. Whereas the woman in Text A, and to a lesser degree in Text E, use announcements and reasons to justify their requests, there are no occasions when a physician does this.

At line 50, the physician announces the next visit followed by a series of declaratives and a directive to see Dr. Stevens. The woman takes this opportunity to initiate a series of statements and questions that control the discourse organization for a substantial part of the subsequent interview text. Two statements, one uncompleted at line 55, and another at line 74, function respectively as requests for a birthing room and her stated intention to labour without pain medication. These solicit offers for action from the physician indexing future actions to be taken at the time of delivery.

Beginning at line 77, the woman initiates a sequence of topics either through statements or questions that are preceded by an announcement and reason for request. At line 77, the woman shifts the topic with a declarative of reported speech about the speed of the third labour. There is, however, a marked announcement of the topic shift with the comment "I was wondering". The physician responds to this as a request for information with a series of declarative statements.

At line 86 the woman interrupts the physician in an information giving sequence with the announcement of wanting to ask a question. Through a series of declarative

statements including the reported speech of physicians, she provides the reason for the request, with the request as a Wh-interrogative question at line 92. Following the physician's response at line 93, she provides a hypothetical statement about physicians' obligations to act with a tag for confirmation (line 94), as well as a question regarding the probability of the baby's survival at line 96. And while she positions the physician as respondent, she interrupts again at line 100 to offer more information. After the physician responds with a long series of declaratives about the hypothetical probability of survival at line 104, the woman offers further information through declarative statements at lines 105, 107 and 110. In turn the physician interprets these statements as requests for more information at lines 109 and 112.

At line 113 however, the woman marks an abrupt shift in topic with another announcement marking her intention to ask a question about cesareans with the request made at line 115. The physician responds with a series of declarative statements and hypothetical offers for action. At lines 119, 121 and 123, the woman through a series of declarative statements shifts the topic to the permission of her partner to be in labour and delivery. At line 125/127, she shifts the topic again with a declarative statement regarding a friend's planned cesarean section. And in follow-up to the physician's responses she offers more information at lines 129 and 131 again functioning to position the physician as respondent. The physician in responding to these statements at line 134 holds the floor and shifts the discussion back to the woman and the likelihood of her having a cesarean section.

In a significant move, the woman at line 135 points out the limits to the physician's knowledge by suggesting "you never know". This is followed shortly after with her challenge to the physician at line 138. The woman's statement is grammatically realized as an impersonal fact. It functions to challenge the physician's information pointing to the limits of biomedical knowledge. At the same time, this challenge is tempered by its formulation as a negative proposition with an appended tag for confirmation. Nonetheless, the physician, positioned as respondent, acknowledges at line 141 the limits of "knowing". The physician then offers a series of declaratives at lines 143 through 147 giving information about the probability of breach position. At line 149, the physician re-establishes control of the interview with a final announcement of the next visit that signals the imminent end of the interview.

The woman in Text A thus combines features of deference with features of social solidarity. Her ability to control and manipulate turn allocation occurs in the generic structure only after the announcement of next visit, and her requests for information are usually justified. But her choices from the mood system enable her to make her preferences for labour and delivery known, and furthermore enable her in two brief statements to manipulate the systems of meaning and show the limits of biomedical knowledge.

Text E. Similar to Text A, the physician's announcement of next visit in Text E (lines 84 and 88) functions as a transition point in the generic structure of the interview for the woman to initiate topics. However, in this interview the woman asks more questions than the physician (Table 4.7), and these requests for information are generally

more direct with fewer deference features than those in Text A. With the greater number of woman initiated questions, the interview in the latter half more closely approximates a conversational genre which Fairclough (1992:14) has characterized as frequent shifts between a range of interconnected topics. What I will show however in the first activity structure is that even with a shift to a more conversationally oriented genre in which the woman frequently controls the progression of discourse with questions, the grammatical patterns of biomedical discourse are still maintained.

At line 89, the woman shifts the topic with a polar interrogative question regarding her weekly bloodwork. And as we have seen, this grammatical pattern of ideational metaphor is one that renders the body absent. The physician in lines 90, 92 and 94 responds to her question. But the woman issues a Wh-interrogative question at line 95 requesting information about the meaning of the physician's statement at line 92, and by reporting as a direct quote at line 99 a similar statement by Bernie. The physician responds with a series of declarative statements giving information beginning at line 103 and ending with hypothetical obligations for actions at lines 105 to 109, followed by a statement of probability at line 111. This information giving sequence combines the grammatical patterns of biomedical discourse : the non-ergative structure of action processes concerning hemoglobin, relational classification processes, and physician action processes.

The woman in response to this information initiates two question and answer sequences beginning at line 112 with a polar question realized as a declarative, and at line 114 with a Wh-interrogative question. Again these questions conform to the grammatical

patterns of biomedical discourse. The physician responds with the information at line 119 and repeats this again at line 124. In a series of declarative statements at lines 120, 122 and 127, the woman offers information as to her reason for requesting the information. The physician acknowledges her reason for request by offering information about her previous pregnancy. The physician at line 130 then resumes control by announcing her intention to be away, re-establishing the previous topic of the next visit.

This second announcement of next visit is again taken as an opportunity by the woman to ask a series of questions. And the exchange shifts further to a conversational genre with the women's questions and statements connecting a series of shifts in topics. The grammatical patterns, however, foreground the institutional relations between physicians and patients in which physicians circumscribe the movements of women. At line 138, the woman asks a Wh-interrogative question regarding the covering physician to which the physician responds at line 139. In response to this information, the woman issues an elliptical question at line 140 raising an element of doubt and functioning as a request for confirmation. When the physician confirms the information again at line 143, the woman then shifts the topic with a statement about a previous covering physician. This becomes a question about identity at lines 144 and 146 and in turn initiates a sequence of tag questions from both the woman and physician at lines 148 through 151.

When the physician identifies the previous physician at line 153, the woman then returns to a declarative statement at 155 and direct quote at line 157 in which she recounts a command to the nurses to "call this doctor". The physician issues a statement with a tag question to clarify the situation. And the woman provides information through

a series of declaratives at lines 160 through 164. At line 169, the physician shifts the topic with a statement about not missing the upcoming delivery. And the woman in response takes this as an opportunity to shift the topic at line 170 to her "feeling" that the baby will come early. The physician re-establishes control of the interview signalling its imminent end with a series of specific polar and Wh-interrogative questions at line 179 and 181 about Christmas, and at line 193 about work to which the woman responds. Only in this final sequence do we find the woman elaborating self-representation of an embodied subject with relational attributive, mental reaction processes, as well as action processes.

Despite the woman's social agency in controlling the turn taking system through questions and statements, this does not preclude the woman from reproducing the same grammatical patterns of biomedicine. Indeed her questions enable her to enter into biomedical systems of meaning and actively take them up. This may be necessary in order for women to negotiate the meaning systems within the medical interview. But as we have seen, it leaves little opportunity for self-representations of an embodied subject.

Conclusions

An analysis of the interpersonal metafunction has focused on how social identity and social relations of participants are constituted in a number of ways: first, the social agency of participants to control discourse organization through the turn allocation system; second, how propositions and proposals as forms of exchange are ways of acting upon other people; that is, how the mood system positions a listener as respondent in terms of what they should know and do; and third, how a speaker positions themselves in relation to the truth value of propositions through the linguistic features that realize modality.

As we have seen, physicians generally control much of the medical interview. They control the turn allocation system through long strings of declarative statements that function as information giving and these are frequently followed by future hypothetical offers for action or directives to act. They establish activities through proposals for action that shift the generic structure to the examination phase. And through this control, they are also able to regulate representations of the pregnant body. Physicians tend to use median value modalities of usuality to generalize the signs and symptoms of a biological body. Furthermore, modalities of probability by indexing these systems of classification, also serve to reproduce what is typical. At the same time, however, probability semantically indexes the uncertainty of the body that always exceeds the classification systems of biomedicine. Finally, physicians' authority as speakers through offers, directives and information giving sequences is indexed by a personal deixis of a non-specific universal form *we*.

The variation of women's responses to both physician control of discourse and the regulation of meaning is divergent. The woman in Text C makes virtually no interventions at all. The woman in Text D assertively manipulates turn taking and uses high value modalities of usuality in order to counter the standardizing representations of biomedicine. The women in Texts A, B and E all intervene strategically at announced transitional points in the generic structure to establish topics. As the woman in Text A demonstrates, the constitution of women's social identity within the medical interview may combine features of both social affinity and deference. And as Text E illustrates, while a shift to a conversational genre may entail different situated discourse identities with women's

questions controlling the exchange of discourse, this does not necessarily alter the grammatical patterns of action and relational processes that regulate biomedical systems of meaning. The rare moments when women's meaning making practices exceed biomedical discourse are generally found at the end of the interview and are contained as the physician re-establishes control to conclude the interview.

In turning now to the final chapter, I will return to my initial research questions looking at the interdependence of the interpersonal and the ideational in the making of meanings and the regulation of biomedical discourse.

CHAPTER FIVE

SOCIALIZING CLINICAL SPACE

As I demonstrated throughout this thesis, Systemic Functional Grammar has provided me with a set of micro-analytical tools to interpret these medical interviews. My analysis at the lexico-grammatical level focused first, on the ideational metafunction, and second, on the interpersonal metafunction. But in doing so, my analysis tended to separate out, rather than explicitly reveal the interdependency of these two metafunctions in meaning making practices. In returning to my original research questions, what I propose to do in this final chapter is first, foreground how my analysis of transitivity and ergative structure indicates the relevance of action, relational possessive and behavioral processes as social semiotic forms for the biomedical representations of a pregnant body; second, re-examine my analysis to look at the co-patterning of systems of transitivity with mood choice, modality and the interpersonal considerations of personal deixis that normalize pregnancy; and third, the grammatical variations that suggest that the pregnant body is never completely contained by the classification systems of biomedicine.

The Absent/Asocial Body

The critical historical literature on the body argues that with the historical convergence of empiricist methods of science and medicine embedded in a cultural politics of a mind/body split, the body has been constituted as a physical object removed from the social and from the self. As an absent or asocial body, it is one that is loosely

possessed by a disembodied self. The feminist literature concerned with the medicalization of the pregnant body further argues that the surveillance of the fetus enabled by the expansion of biomedical technology elides women's bodies and supports a view of the fetus as an autonomous individual. These various literatures suggest then that the pregnant body is inscribed within cultural systems of meaning and spoken in particular ways: as a possessed body; and increasingly in medical-legal terms, a pregnant body constituted as two separate and competing entities. Yet while these literatures point to cultural practices that disembody the self, they also argue that the social body is always in excess of biomedical systems of classification; that is, the meanings that are made, and how the body is subjectively lived, can never be contained by the inscriptions of a biological body. Thus we experience different modes of living our bodies, as for example the distinction suggested in the literature between *being* and *having* a body.

In taking as my starting point the insights of these literatures, I have asked whether the discourse semantics of an absent/asocial pregnant body are inscribed in these medical interview texts, and if so, how this is grammatically accomplished : what are the grammatical patterns that construct the body as asocial ?; the patterns of a body that is possessed ?; and the patterns that construct the pregnant body as two competing entities ? In turning first to my analysis of transitivity and ergative structure, I will reexamine the relevant ideational grammatical patterns that render the pregnant body absent, and in doing so constitute the pregnant body as a body possessed, as well as a body constituted in competition with the baby/fetus.

Transitivity patterns in the English language reveal different predication types. As we have seen, there are some broad distinctions among processes based on their function and their associated participant roles. A systematic analysis of these grammatical patterns reveals the culturally sanctioned patterns of who does what to whom, when, where and how. An analysis of ergative structure examines the clause more generally in terms of the representation of agency. A clause with an ergative structure represents agency as external to the medium, the medium being that which is necessary for the action to take place. A clause with a non-ergative structure represents a process as being self-engendering, a process for which there is no external agency.

My analysis of transitivity and ergative structure indicated the significance of action and behavioral processes, as well as ideational grammatical metaphors as forms for the social semiotic transmission of biomedical discourse. The analysis of ergative structure foregrounds these issues in two important respects that I will outline: first, in ergative clauses, physician-initiated action processes render women's bodies absent, outside of representation, and this in turn has consequences for the political representation of fetus and mother as separate and autonomous individuals; and second, in non-ergative clauses, action and behavioral processes are particularly salient as forms of representational practices that construct the body as a physical domain of law-like phenomenon removed and separate from the social.

A transitivity analysis indicated that there are a number of variations among physician-initiated action processes and that these variations signify important semantic differences. When physician-initiated action processes extended to an entity that was

explicitly represented in the structure of the clause, it was most frequently referring to the baby. In terms of the ergative structure and an analysis of agency, physicians are agents who act upon the fetus. And these action processes are further supported by perception processes in which physicians as sensors watch, listen, and monitor the fetus with the assistance of biotechnology - of ultrasound, stethoscopes and fetal monitoring.

However, many physician-initiated action processes were also represented as ideational grammatical metaphors. My analysis of these grammatical metaphors showed how action processes are transformed into nominal grammatical categories. And a variety of significant shifts in meaning occur in nominalizations of physician-initiated action processes. What is most striking is the grammatical pattern in which action processes are nominalized in examples such as 'do an ultrasound'. In terms of transitivity, while the actor role of physician is retained, the participant role of patient is elided from the grammar of the clause. Moreover, the analysis of ergative structure reveals how the medium, the entity without which a physician's agency cannot take place, is absent. Women's bodies then are the absent medium, assumed but not represented in physician-initiated action processes. Thus we have evidence to support the critical literature on the body that suggests the modern body has been constructed as an asocial body outside systems of representation. And my analysis of transitivity and ergative structure have indicated how this is inscribed at the lexico-grammatical level through nominalizations of physician-initiated action processes.

Furthermore, this variation in representations of ergative structure among physician-initiated action processes has particular salience in light of feminist critiques

of the routinization of antenatal biotechnology. Feminists have argued that biotechnology, in bypassing women's subjective experience, has come to represent women's bodies as merely the route to the fetus. And in an increasing medical climate where surveillance of fetal health and development comes to define the success of a pregnancy, women's bodies, by virtue of their absence, are constructed as peripheral at best. In medical-legal terms, however, this has increasingly come to be represented as a competition between the interests of two persons. The differential representation between the fetus as medium, juxtaposed with women's bodies as an absent medium are consonant with, and provide evidence at the lexico-grammatical level for, the political representation of the pregnant body as constituting two separate and competing entities, the woman and the fetus.

Another pattern that occurs with nominalizations of physician-initiated action processes is one in which the agency of the physician is elided. The medium becomes the subject of the clause and co-occurs with relational possessive processes, as for example 'have a cesarean'. A process in which women's bodies are rendered absent, comes to be a 'thing' that women possess. This provides further evidence for the critical literature on the body by suggesting the patterned ways in which the inscriptions of modern biomedicine disembody the self.

Thus in ergative clauses in which agency is an external feature, nominalizations either work to obscure the agent, in this case physicians, or in other instances, the medium, most frequently women's bodies. As feminists have suggested and I have demonstrated through an ergative analysis, these are meaning making practices that render women's bodies invisible in the surveillance of the fetus.

But as I suggested, a second important variation in the ergative structure occurs with action affective, motion and behavioral processes that explicitly represent women's bodies. An analysis of these processes reveals a non-ergative structure; a grammatical pattern that lends further support to the thesis that representational practices construct the body as asocial. Behavioral processes are considered to be physiological or non-directed psychological happenings that are similar to action processes but with generally only one participant role, a behavior. But having noted a consistent transitivity pattern and categorizing it as behavioral should not preclude us from asking why the body in general, and more specifically within the context of these medical interviews, is almost always represented in processes that are considered self-engendering. The representation of a self-engendering process suggests that there is no external agency. The effect is to remove the body from representational practices in which the body and the social intersect. And as previously argued in Chapter Three, this representational practice obscures the dialectic between the body and the social, and the power of each to transform the other. Self-engendering action affective and motion processes where anatomical or physico-chemical correlates of the body are actor, as for example in Text E at line 101 "we see it drop", further contribute to a representation of the body as a physical, law-like, and self contained domain.

I have indicated the importance of action and behavioral processes as representational practices that construct the pregnant body as absent and asocial. But as the critical literature on the body also argues, representational practices are inscribed and lived - congealed into an embodied reality. Consequently, a disembodied self, or, rather,

a possessed body are the truth-effects of a biomedical model. Again, there is evidence of grammatical patterns in these texts that suggest the inscription of a possessed body.

In both physicians' and women's speech, transitivity patterns of action transfer and relational possessive processes in which women *have* or *get* symptoms conform to biomedical representations of a self that possesses a body. Furthermore, women's generative capacities for creating life are consistently transformed through grammatical metaphor whereby an action resultative process is realized by a relational possessive process. Thus women *have* babies. And while a relational possessive process in this case semantically indexes an action resultative process, what is significant is that there are no other grammatical patterns that realize this process.

Nominalizations of physician-initiated action processes which are actively taken up by women also reveal the inscription of a disembodied self. There are two patterns in the ergative structure of these processes that reveal how this inscription is grammatically accomplished. The first pattern occurs with physician-initiated action processes where the medium, women's bodies, are elided from the grammar of the clause. This is evidenced in Text E by the example 'I do bloodwork'. The second pattern occurs when the physician as actor is elided from the grammar of the clause, and the medium becomes the subject. This occurs, as we have seen, with relational possessive processes in which women '*have* cesareans'. In both cases, the *I* or *self* indexes a disembodied self by its co-occurrence with ideational grammatical metaphors which elide women's body.

The truth-effects of a disembodied self are also indexed on several occasions in their co-occurrence with mental cognition processes. Discussions associated with cognition

processes of women 'not knowing' index two overlapping semantic potentials. On the one hand, it is a self disembodied in which the self cannot know the body according to standardized biomedical forms of knowledge. And on the other hand, the consequences of this are the difficulties women experience in making meanings that are spoken in ways other than biomedical representations.

My analysis of transitivity patterns and ergative structure provides evidence for the discourse semantics of an absent or asocial body of law-like phenomenon pointed to in the critical literature on the body. And in doing so, it indicates grammatical patterns that constitute the pregnant body as two separate persons; and grammatical patterns that inscribe the pregnant body as one possessed by a disembodied self. I suggested earlier however, that these meaning making practices need to be re-examined in terms of the co-patterning of the ideational and interpersonal metafunctions of language. In doing so, I will look at the ways in which physicians generally control the social activity structures which enable them to regulate meanings that normalize pregnancy.

Normalizing Pregnancy

The critical literature on medical interviewing suggests there is an asymmetrical relation of power between physicians and patients related to interactional practices (CA), as well as the differential access to symbolic forms of knowledge (sociolinguistics). Systemic Functional Grammar as a method of discourse analysis allows for a grammatical analysis that examines the interdependence of the interpersonal and ideational metafunction : how the co-patterning of transitivity with mood choice, modality and

personal deixis that form patterned linguistic choices are constitutive of social identities and social relations of power.

Dialogic exchanges between participants are functional moves that position and re-position speakers and hearers in social activity structures that cumulatively build up the generic structure of the medical interview. The mood system reveals a basic distinction between two types of social activities - proposals: the exchange of goods and services; and propositions: the exchange of information. The co-patterning of linguistic choices constitutive of relations of power is evidenced in at least two ways: First, the co-patterning of transitivity with mood choice and modulation that realize proposals for action reveal an extreme unevenness of social agency between physicians and women. Physicians are positioned to act, and through directives position women in terms of what they should do and how they should act.

But second, I will argue that physicians' social agency in relation to proposals is a function of their social agency to regulate the meanings of pregnancy in terms of a physical or asocial body. The co-patterning of transitivity with mood choice, modality and personal deixis in propositions are meaning making practices that work to normalize the experience of pregnancy. I will re-examine the co-patterning of linguistic choices first with respect to proposals, and second with respect to propositions.

Proposals. With respect to proposals, the co-patterning of transitivity with mood choice and modality occur in a number of specific ways within the context of these medical interviews. First, physician action and perceptual processes co-occur with offers for action that are immediate to the work of getting things done in the medical interview.

These are the offers that function as announcements at transitional points in the generic structure, for example to take blood pressure, to feel the position of the baby, to listen to the heart rate, and to make an appointment. Thus they are offers for immediate actions that position women as recipients of physician action and perceptual processes. Second, physician action processes also co-occur with high value obligations that are tempered with modalities of probability. While these are statements about the likelihood of future physician-initiated actions, and therefore function as propositions, they are at the same time about hypothetical offers for action. Thus these statements are about future possibilities in which women will be positioned as recipients of physician actions; and which in their representation, as I have argued, render women's bodies invisible.

But there is yet a third pattern to physician proposals. Women are not simply positioned as recipients of physician actions. They are also positioned to act by directives spoken by physicians. Thus as we have seen, many of the processes in which women are represented as actor, are not women-initiated action processes. They are in fact physician initiated commands and directives, and they position women in terms of what they should do. These commands then co-occur where women are represented as actor, sensor, or sayers in action motion, designation, transfer, mental reaction and verbal processes, and they generally function to circumscribe the movements of women.

Physicians use a variety of grammatical resources to initiate these commands. The imperative form, which occurs only in Text B, is used in the context of immediate actions or as an injunction "not to worry". Another form of offer which indexes immediate actions to be taken is a physician offer that co-occurs with a physician action causative

process, as for example "we'll get you to come up here". This in effect functions in a double sense as a directive to the woman to initiate an action, and as a way for a physician to initiate a shift in the generic structure to the examination phase.

Directives for future actions are realized by modulated declaratives in the form of high and medium value obligations; impersonal noun facts; and through the modulation *can* granting permission for women to act. What a combined analysis of the ideational and interpersonal metafunction reveals then is that many of women's action processes are physician-initiated directives. These directives position physicians as agents of modulation granting permission and issuing obligations that in turn position women to act within the immediate clinical space, as well as in their private, personal space.

While physician proposals position women as recipients of actions or as required to act, the reverse is not the case. There are no instances in these texts where women make offers for action that position physicians as the recipients of those actions. Similarly, women do not give directives to physicians to act with the exception of two instances. Furthermore, these instances provide an interesting contrast between physicians' and women's commands. In Text E at line 32, the woman issues an imperative command "don't let him down" that co-occurs with an action causative process. The physician is positioned to act, yet this directive is issued by the woman to control the movement of her child. The only other command by a woman is again in Text E at line 157, where the woman, using a direct quote, recounts a narrative commanding a nurse to "call this doctor". Thus in the only two instances where women command physicians, in the first

case it involves circumscribing a child's movement; and in the second, it is a command issued indirectly through nurses.

The co-patterning of transitivity with mood choices and modulation are thus revealing of the unevenness of social agency between physicians and women in proposals for action. Physicians initiate action and perceptual processes as offers or directives for action that set up activity structures in the medical interview. In contrast, women are positioned in action processes through commands and directives by physicians. Finally, the almost complete absence of proposals by women signifies the degree to which there is an absence of agency in positioning physicians in proposals.

Propositions. The co-patterning of transitivity with proposals constitutes a marked difference in social identity and unequal social relations across all texts. However, physicians' social agency to act upon and command women is a function of their ability to regulate systems of meaning that normalize pregnancy. By suggesting that medicine normalizes pregnancy is not simply to argue in a realist sense that it refers to that which simply exists as 'normal'. But it is to point to the meaning making practices that construct the boundaries of what is considered normal; and which by its very construction entails exclusions that mark individual variations as deviations requiring physician intervention.

The greatest proportion of these texts involve participants in the exchange of information. And with the exception of Text C, I have argued that physicians' and women's self-positioning through mood choices as well as modalities, in turn positions the other respectively as respondents in social activity structures. Physicians generally control discourse organization by holding the floor with long strings of declarative

statements. These information giving sequences are important for controlling the turn allocation system. But to further examine how these sequences regulate meaning and normalize the experience of pregnancy, we need to look first, at the co-patterning of modality and personal deixis with respect to relational, action, and behavioral processes concerning signs and symptoms of pregnancy and labour; and second, at their co-occurrence with physician action processes.

The typical or expected signs and symptoms of pregnancy are constructed through a range of linguistic resources. As we have seen, modal adjuncts of usuality - most often median values of *usually* and *often*, co-occur with relational attributive, possessive, existential and circumstantial processes, and occasionally with action designation, motion and behavioral processes. And physicians occasionally use interpersonal grammatical metaphors to further emphasize the typicality of the signs and symptoms. So for example, relational attributive processes such as "it is common" or "it is normal" project relational attributive, possessive, action motion or mental perception processes.

But in addition to modalities, there are other ways in which the experience of pregnancy is standardized. Relational attributive processes such as "that's normal" and "that's good" may be indexical to discussions of signs and symptoms. And physicians also use 'normal' as an attribute in a nominal group, as for example, a "normal labour". In Text D at line 82 when the physician suggests to the woman that a low lying position is a "good sign" associated with "a more normal labour", it is also associated with other attributes such as a "more effective" or a "faster labour". Thus normal becomes by definition a faster, more effective delivery. What's normal or typical, however, is also

constructed in contrast to that which is atypical. The use of negative polarity with modalities of usuality, such as "not always" and "don't often" suggest there are variations that are less typical.

The typicality constructed through these statements is further strengthened by physician's deployment of universal forms of personal deixis. A non-specific use of *we*, in some instances, indexes physicians as authorized speakers who generalize signs and symptoms to a non-specific form of *you*, or to generic forms, as for example *people*, *some patients*, and *some women*, as well as the pronominal form *it*, indexing an observed physical correlate. A comparison of an individual's signs and symptoms with what is "usual" may be reassuring to an individual woman when the two correlate. On the other hand, the co-patterning of usuality with transitivity and non-specific forms of personal deixis reveal systems of classification that normalize pregnancy and labour according to typical clinical signs and systems of knowledge available with biotechnology. This generalized experience then forms the basis on which an individual women's experience of pregnancy and labour is evaluated.

Physicians ask addressee oriented questions in which specific forms of personal deixis co-occur with mental cognition, perception and reaction processes. These are questions about how and what women feel, and if they have any concerns. While these solicit women's subjective knowledge about pregnancy, information is fit with, incorporated into, and evaluated according to probabilistic systems of classification.

The co-occurrence of modalities of probability with relational, action and behavioral processes concerning pregnancy and labour refer back to, and are thus

indexical to, the systems of classification normalizing pregnancy and labour. Moreover, modalities of probability accomplish two overlapping meaning potentials. First, the systems of classification enable physicians to say what is likely or probable to occur during pregnancy and labour. Median values, such as *likely*, *probably*, and the more hypothetical realization *would* stress what to expect in light of the classification system of normal. Second, however, is that probability marks the uncertainty of the body; that is, the ability of the body to disrupt and defy the typicality of constructed systems of classification. Low values of *maybe*, *might*, *can*, *could*, and *possible* point to the uncertainty of assertions with respect to the body. And in two utterances by the physician in Text A, uncertainty is underscored at line 141 with the statement "nothing's very clear on that" and at line 147 with "that becomes very unpredictable".

The biosciences and medicine have constructed systems of classification based on the body as an abstracted biological phenomenon. That the body can never be contained by standardized biological categorization, and thus always exceeds the systems of meaning is marked by individual variations. While physicians actively re-produce the classification systems of biomedicine, they are also forced to mediate given the body's ability to undermine them. But the process of mediating and regulating these systems of classification extends into other semiotic domains. As we have seen in Chapter Four, the co-patterning of physician-initiated action processes with modalities and personal deixis are significant.

Physician action processes are acts of intervention, ways of dealing with individual variations of the pregnant body. And arguably, while an individual woman may benefit

from interventionist practices, it is the widespread nature of these practices that is at issue in both the literature and public debates. The co-patternings of usuality with action processes reveal standard practices, as well as shifts in practices that index struggles over the classification systems of biomedicine. There are instances where modalities of usuality co-occur with action and perception process, along with the non-specific form of *we*, emphasizing the typicality of the action among physicians in general. So, for example, in Text D when the physician suggests that the due date is an approximation and women commonly go over this date, she then goes on to state at line 89 that after one week "we tend tah- watch the baby with a heart rate test".

Moreover on the basis of typical actions, physicians may suggest what are probable courses of action or obligations to act under hypothetical conditions. Again as we have seen, these co-occur with a non-specific form of *we* as for example, "we may have to get an ultrasound" or "we probably would [do an internal]". In other instances, it is represented as an impersonal noun fact, as for example with a breach baby "it might mean seeing" an obstetrician.

The typicality of physician actions and their obligations to act then are mediations on systems of classification that attempt to define a wide range of variations as deviations requiring intervention. These typical actions are social semiotic acts that contribute to controlling systems of meaning, maintaining categories of what is usual and typical for pregnancy and labour in the face of a defiant body - a body that in its ability to undermine classifications may also undermine biomedical expertise (Oakley, 1984: 205)

Thus interventions are supported by, and function to support systems of meaning; and these in turn function to support the very construction of expertise.

That these systems of classification are not, however, seamless and are undergoing considerable challenge is also evidenced at the lexico-grammatical level by co-patterning of usuality with physician action processes. Where objective forms of interpersonal grammatical metaphors of probability are combined with a negative polarity, they suggest the unlikelihood of physician actions: thus in Text A at line 124 and 134, the physician suggests "its very unlikely" to have a cesarean section with a third child; or in Text E at line 111, "it would be very unlikely" to do a transfusion. And both statements are combined with other declarative statements of physician action processes that co-occur with the non-specific form of *we* and indicate a high level of certainty regarding the assertion, for example in Text A at line 128 with the utterance that "we're doing less breach cesareans as well".

As we have seen, the co-patterning of the ideational and interpersonal metafunctions in medical interviews generally position women with respect to biomedical discourse in a number of ways: in social activity structures where they are positioned by physicians in terms of what to do; and within classification systems of meaning that standardize the experience of pregnancy, the representational practices of which inscribe a body as a physical object. If medical interviews are about the power of biomedicine to negotiate and restructure the experience of pregnancy, women respond to these meaning making practices in a variety of ways which depend on their own meaning resources shaped by social and personal histories.

My analysis of the interpersonal metafunction revealed wide differences in women's social agency. In Text C, the woman was only ever positioned as a respondent. However, through statements in Text B and D, and through both questions and statements in Text A and E, women's self-positioning both established topics and progressed discourse. And while these patterns suggest changes in social identity and social relations among women and physicians, women's social agency was also accompanied by features of deference. For example, women ask questions at transitional points in the generic structure, and more particularly after the work of the medical interview is done. And in Text A, the woman's questions were often accompanied by announcements and reasons for request.

But despite these deference features, the self-positioning of women in social activity structures is important in two ways. First, women actively position physicians to respond to their questions and statements. And second, it enables women to make self-representations; representations that may conform with, and reinscribe the grammatical patterns of biomedical discourse, as well as patterns that exceed biomedical representations of an asocial body. In turning now to examine women's social agency, I will look first at how women position physicians in social activity structures; and then examine the grammatical variations that index a social body/embodied self.

Women's manipulation of turn-taking and mood choice to ask questions, particularly in Text A and E, generally co-occurs with obligations and probabilities of physician-initiated action processes. For example, the woman in Text E at line 66 makes a statement followed by a tag question "you probably have to do an episiotomy, right?"

These questions then generally concern physician practices of episiotomy, bloodwork, and cesarean sections. In a few instances, they function as requests for directives or permission for women to act, as for example in Text A at line 39 "can I go home the day after ?". Thus, they generally position physicians as respondents in social activity structures of information giving sequences or proposals that authorize them as speakers of what one should know and do.

Yet through questions, as well as statements, women demonstrate their own knowledge about biomedical practices. As we have seen in Text A, a woman's ability to enter into the meaning system of biomedicine, and in conjunction with her personal knowledge of pregnancy and that of other women, enables her to manipulate that system to reveal the uncertainty of the body and the limitations of biomedical classifications. In doing so, the physician is positioned to respond to the limitations of biomedical knowledge. As we have seen, these are the only statements across all texts in which a physician's utterance is one of "not knowing" at lines 137, 141 and 147.

Thus while women's questions and statements may sustain biomedical systems of meaning, they may also, by pointing to the uncertainty of the body, potentially reveal their limitations. But there are other ways in which women as embodied subjects make meanings that exceed biomedical classifications. And it is to these grammatical variations that I will now turn.

Variations/Excess

The critical literature on the body has argued that despite the inscriptions of modern medicine, the lived body can never be completely contained by, and is always

more than, the inscriptions of biomedical systems of meaning. If we have examined these texts for how the inscriptions of modern medicine are accomplished grammatically, then it is also necessary to look for grammatical variations that suggest other ways in which the pregnant body is spoken. What I am suggesting is that women's efforts to make meanings about cumulative non-discursive knowledge are not necessarily amenable to standardized knowledge generated by classification systems of biomedicine. I am suggesting then that these are forms of knowledge that can not be captured by routine technological procedures which in the process of monitoring the fetus have come to normalize pregnancy into a series of risk levels.

The distinction in the critical literature between *being* and *having* a body are suggestive of shifts between an embodied and disembodied subject. As we have already seen, the first person deixis *I* spoken by women frequently indexes grammatical patterns of *possessing* a body, or of a body externalized and absent. And I have argued, these are grammatical patterns that suggest the inscription of a disembodied self. But keeping in mind the insights of the critical historical and feminist literature, I have examined these texts for shifts from a subject structured by an identification with biomedical discourse, a disembodied subject, to grammatical variations that index self-representations of an embodied subject. These grammatical variations are evident where the *I* co-occurs with a different co-patterning of transitivity, mood choice, and modality.

In contrast to the grammatical pattern of '*having* a body', there are instances of relational attributive, and mental cognition and perception processes in which women speak as embodied subjects - of *being* tired, of *feeling* fetal movements, and more

generally of *knowing*. In these instances, the *I* indexes grammatical patterns that suggest forms of knowledge that exceed biomedical representations. Yet a great majority of these utterances are indexical to questions and comments by physicians. Only in Text E, and in response to a set of physician initiated Wh-interrogatives at the end of the interview (line 181 and 193), does a woman elaborate a response in which the *I* co-occurs with both action, relational attributive and mental processes. More generally, however, women's positioning as respondent is frequently associated with their failure to elaborate self-representations as an embodied subject.

But there is other evidence of women making meanings that exceed biomedical systems of classification. The co-patterning of usuality with women's action and perception processes indicate women's insistence to speak to their immediate knowledge about their bodies in the face of generalizations. In Text D, in response to the physician-initiated topic of weight gain, the woman's use of high value modalities - *never* and *always* co-occur with action designation and perception processes that function as assertions of her personal experience, as for example "I'm always doing something". In Text B, low value modalities of usuality co-occur with a modality of capability, and with perception and cognition processes to emphasize the woman's knowledge about fetal position and movements, as, for example, "sometimes I can feel it down here". Furthermore, a high value modality of probability at line 16 emphasizes her certainty about the probable movements of the fetus, "it'd just turn back right now, I'm sure". Thus, women's use of high and low values of modality are indicative of women's cumulative non-discursive knowledge that personalizes their experience of pregnancy, rather than the

median values of usuality and probability characteristically deployed by physicians which generalize.

There are, moreover, important transition points where women through self-positioning either enact a brief shift away from the medical interview genre to a conversational one, or embedded within a conversational genre, shift topics. There are two aspects that are significant here. First, these are attempts by women to ask, or introduce forms of knowledge that exceed biomedical representations. And second, these social activity structures are generally located towards the end of the interview when the work of the medical interview has been completed. This suggests that women know when it is appropriate to enact generic shifts away from the medical interview genre, and introduce other topics; and at the same time, it allows for the self-positioning of physicians to enact closure with the announcement for next appointment. The boundaries and limits between the medical interview genre and a conversational genre are thus accomplished by both women and physicians.

These brief generic or topic shifts at the end of the interview occur in Text B, D, and E. Women, either through questions or statements that co-occur with mental perception and cognition processes, introduce and establish topics dealing with women's own or shared knowledge about when they are due. In Text E at line 170 and again at 172, the woman introduces this as a topic shift with the statement that she "thinks" and has a "feeling" that the baby will be early. In Text D, the woman initiates a generic shift at line 110, and at line 114 reveals the reported thought of women in her pre-op class regarding who among them would be the first 'to go'. In Text B at line 134, the woman

through a statement and questions shifts to a conversational genre that discursively positions the physician as a pregnant woman.

The physician's response as a "not knowing" subject in association with her self-representation as a "regular patient" is in contrast to her self-positioning throughout the interview as the "knowing" *I/we* of biomedicine. Within the same discourse then, a first person deixis indexes shifts between *I* as an authorized speaker that co-occurs with physician action and perception processes to the disembodied *I* of pregnant women. It is revealing of how the physician, as a pregnant woman, is positioned and subjectively constituted within the same discourse in contradictory ways.

There is, however, a grammatical variation in the speech of two physicians in which they shift from a first person deixis *I* to a second person non-specific form *you* to speak as embodied pregnant subjects. In text B at line 32, in association with the discussion on smells, the physician states "I think you notice that more when you are pregnant.. have you noticed?". In Text C, this occurs at line 34 with the utterance "once you can feel the baby moving it's a little easier". Moreover, the example in Text C reveals how the semantic shifts between an embodied and disembodied subject are indexed by the co-patterning of transitivity and modality with the non-specific form *you*. A disembodied *you* co-occurs with a mental reaction process *worries*, as for example "before you feel it, you sort of- kind of- kind of worry if its really- if its really in there, eh?". This statement reveals a *you* pregnant as determined by biomedical knowledge but not embodied. But the physician self-identifies her shift to an embodied subject by the

previous statement in which *you* co-occurs with a modality of capability *can* and a perception process *feel*.

There is evidence then in both women's and physician speech of the distinction in the literature between *being* and *having* a body. Different ways of speaking the pregnant body that suggest semantic shifts between an embodied and disembodied subject are revealed through the co-patterning of personal deixis with transitivity patterns and modality. And while these instances are limited and for the most part not elaborated, they point to a social body that always exceeds the biomedical inscriptions of a biological body.

Conclusion

Within this thesis, I have examined how the discourse semantics of a biomedical model of the pregnant body is realized through the co-patterning of linguistic choices drawn from the interpersonal and the ideational metafunctions of language. In contrast to the medical interviewing literature which generally tends to focus on either interactional practices (CA) or a thematic analysis (sociolinguistics), this analysis demonstrates how meaning making practices constitutive of social relations of power are not simply a function of one metafunction or the other. Furthermore, the fundamental assumptions of biomedical model can not be conceived of only at the level of a model of interaction; nor strictly in terms of syntactic structures that index differential access to logical and hierarchical structures of biomedical knowledge.

As the insights of the critical literature suggest, the biomedical model is about the surveillance and mathematization of the body as a physical object. It is about processes

through which the body is normalized and inscribed within systems of meaning that standardize the body as an asocial/biological body. The clinical gaze has historically transformed the pregnant body in a double sense: not only with the surveillance and mathematization of the pregnant body as a single biological entity; but in the unprecedented surveillance of the fetus the clinical gaze has re-mathematized the pregnant body as two separate and competing biological entities. The power of these inscriptions, moreover, is in the way they engender social subjectivities that live the body in particular ways.

What I have continually foregrounded throughout this thesis are both the acts of meaning that normalize and inscribe the pregnant body as an asocial body, as well as the meaning making practices of speaking the pregnant body that exceed biomedical representations. The co-patterning of mood choice with transitivity, modality, and personal deixis in physician's speech revealed how their social agency to position women in activity structures is combined with linguistic choices that regulate the meanings of a biological body. And when modalities of probability foreground the uncertainty of the body, modalities of usuality, probability, and obligation co-occur with representations of physician action processes that index future acts of intervention that function to maintain classifications systems of what is normal. Furthermore, the representation of these action processes as ideational grammatical metaphors render women's bodies absent, and thereby function to maintain the meanings of an asocial/biological body.

The truth-effects of biomedical discourse are accomplished in the grammatical patterns that engender social subjectivities of a disembodied subject; and I would stress,

in the difficulties of speaking representations of a pregnant body that do not conform to the patterns of this discourse semantics. That so few examples of grammatical variation occur in women's speech in these texts suggests both the predictableness of meanings made within this institutional context, as well as constraints on the potential of meanings that might or could have been made. Thus, as the critical literature suggests and I have confirmed, the pregnant body is for the most part spoken as an asocial body, possessed by the self.

But grammatical variations in women's speech do suggest the inscription of an asocial or biological body are never complete. These grammatical variations are significant in light of critiques that argue Foucauldian analyses construct an absolutist discourse (cf. Palmer, 1990). It is possible that a larger sample size would generate more grammatical variations for as the feminist literature suggests, women's ability to negotiate the power of biomedicine is dependent on a complex of social and personal resources in making alternate meanings.

There are a number of different directions in which future work could build upon this exploratory study. The first step would be to incorporate into the analyses of these medical interview texts an analysis of the third metafunction of language - the textual metafunction. This would provide an analysis of the clause in terms of its function as message: the thematic organization of the clause, as well as lexical and grammatical cohesion within and between clauses. However, one of the stated intentions of feminist arguments to retheorize corporeality is to provide alternate representations of corporeality that might challenge, refashion and transform the meanings systems of our political-ethical

structures (cf. Gatens, 1988; Grosz, 1987; 1990). It is important then not only to analyze social contexts for the ways in which the discourse semantics of biomedicine regulates the meanings of the pregnant body; but to consider social contexts that might provide for greater representational variations of the pregnant body.

Future work on medical interviews of pregnancy would need to consider how to include within a larger sample size social differences among women as for example, class and/or race and ethnicity. Furthermore, given the recent state support and funding of midwifery services, a comparison of medical and midwifery interviews might reveal greater variations in how representations of the pregnant body are spoken. In addition, pre-natal classes, a comparison among those classes with different orientations to pregnancy and labour, as well as conversations among pregnant women in non-institutionalized contexts, might provide alternative social spaces to analyze women's self-representations of pregnancy.

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APPENDIX A

Letter/Consent form for Women

I am an M.A. student in sociology at Carleton University in Ottawa and I previously worked in health care for several years. I am studying the use of language and how we express the social, emotional and biological aspects of our health in talking with health care workers. Women's health and pregnancy will be the focus of this study.

Pregnancy is an important time for women to be able to talk about the physical and emotional changes they are experiencing. For the purposes of my study, I will be tape recording office visits between women who are pregnant and their physicians. Some recordings will be visits during the early months of pregnancy. Other recordings will be at times later in pregnancy. However, any individual woman will be asked to participate in only one taped session.

The taping of interviews and the analysis of language will be used to understand the general ways in which women and physicians talk about pregnancy. The interviews will not be used to evaluate individual responses. I will not use the names of anyone interviewed in my work, nor will I use any information that will identify an individual. The information in the interviews will be completely confidential.

Your access to health care services will not be dependent on your willingness to participate in the study. If you choose to participate in the study but later change your mind, you have the right to withdraw.

If you agree to participate, please sign the attached consent form. This indicates that you understand the purpose of the study and that you are willing to participate in it. I will also need some basic information to help me understand the interviews. There are a few questions for you to answer on the following page. Thank-you very much. Your co-operation is appreciated.

If you have any further questions, or if you would like a summary of the study, please feel free to contact me at my home phone number (613) 231-4295. You may also contact Prof. Stephen Richer, Chair, Sociology and Anthropology Dept., Carleton University at 788-2600 (ext.2585).

Sincerely,

Margaret Phillips

INFORMATION

Date of birth _____

First language: (circle one)

- A. French
- B. English
- C. Other (please name)

Ethnicity : Which group or groups do you choose to culturally identify with

- A. French Canadian E. English I. Polish M. Metis
- B. German F. Italian J. Ukrainian N. Irish
- C. Jewish G. Scottish K. Chinese
- D. Franco Ontarian H. Lebanese L. Native _____

Other (please name, for example Japanese, Greek, Haitian, Mexican, Iranian, Somalian)

Number of children : _____

Number of previous pregnancies : _____

Education (circle one)

- A. public school : grade completed _____
- B. secondary school: grade completed _____
- C. post-secondary (for example college, university, special forms of training etc.)

Occupation : your occupation _____

partner's/spouse's occupation _____

Household Income level (circle one)

- A. less than \$20,000
- B. \$20,000 - \$30,000
- C. \$30,000 - \$40,000
- D. \$40,000 - \$50,000
- E. \$50,000 - \$60,000
- F. greater than \$60,000

CONSENT FORM

I, _____, have read and understood the terms of the study outlined in the accompanying letter. I am willing to participate in the study and give my consent for the tape recording of the office visit with my health practitioner. I have the right to withdraw from this study at any time.

(signature of subject)

(date)

(signature of researcher)

(date)

Letter/Consent form for Health Practitioners

I am an M.A. student in sociology at Carleton University in Ottawa and I previously worked in health care for several years. I am studying the use of language and how we use it to express aspects of our health in talking with health care workers. Women's health and pregnancy will be the focus of this study.

Pregnancy is an important time for women to be able to talk to their health practitioners about the physical and emotional changes they are experiencing. For the purposes of my study, pre-natal visits between women and their health practitioners will be tape recorded. Some recordings will be visits during the early months of pregnancy. Other recordings will be at times later in pregnancy. However, any individual woman will be asked to participate in only one session.

The taping of interviews and the analysis of language will be used to understand the general ways in which women and their health practitioners talk about pregnancy during a regular office visit. The interviews will not be used to evaluate individual responses. I will not use the names of anyone interviewed in my work, nor will I use any information that will identify an individual or their clinical practice. The information in the interviews will be completely confidential.

If you choose to participate in the study but later change your mind, you have the right to withdraw.

If you agree to participate I will ask you to sign a consent form. This indicates that you understand the purpose of the study and that you are willing to participate in it.

If you have any further questions, or if you would like a summary of the study, please feel free to contact me at my home phone number (613) 231-4295. You may also contact Prof. Stephen Richer, Chair, Sociology and Anthropology Dept., Carleton University at 788-2600 (ext.2585).

Sincerely,

Margaret Phillips

CONSENT FORM

I, _____, have read and understood the terms of the study outlined in the accompanying letter. I am willing to participate in the study and give my consent for the tape recording of the office visit with _____. I understand that I have the right to withdraw from the study at any time.

(signature of subject)

(date)

(signature of researcher)

(date)

APPENDIX B

TRANSCRIPTION SYMBOLS

The following transcription symbols have been developed within the tradition of conversation analysis. They are adapted from the set of transcription symbols outlined in Psathas (1990: 297-307).

I. Sequencing

1. Overlap

When an utterance overlaps with another utterance, it is marked by a set of double brackets at the beginning and end of the overlap.

- a. D: it may be that you're getting a bit of tension
sort of holding things

W: [[
Especially when I stand up

- b. D: when you think you're in labour

W: [[]]
yes (hhhh)

2. Contiguous utterances

When there is no interval between the end of an utterance and start up of another participants utterance, it is marked with an equal sign.

- a. D: where it's life threatening to her an the baby then yeah they'd probably have to=

W: =wha- what are the chances of it surviving . that ()

II. Timed intervals

Silences or pauses within or between utterances are marked by the number of seconds in parentheses.

- a. D: yeah Dr. Ardeti (2 secs) delivered- uh Rachael.

- b. D: And uh:, have you felt the baby move yet ?
 W: uhuh
 (4 secs)
 D: When did that start ?

Alternatively, shorter pauses are marked with dots.

- a. D: your ultrasound we did uhm.. what....two weeks ago ?
 b. W: if there's no problems . with the labour

III. Characteristics of speech production

1. Sound stretch

A colon is used to indicate that a prior sound is elongated.

D: And a:h how are you feeling ?

2. Sound cut-off

A dash indicates a noticeable cut-off of a prior sound or word.

D: an he ordered a- glucose tolerance- test an th- no- . have you had that done?

3. Emphasis

Emphasis is indicated by underlining.

D: So everything looks good. (3 secs) Still- that 's the same position as Sue had last week.

4. Intonation

A period indicates a stopping fall in tone, while a question mark indicates a rising intonation.

D: Well it certainly doesn't look- very noticeable now. uhm So you're about nineteen and a half weeks or so ? now ?

IV. Aspiration - Audible inhalation and exhalation

1. Outbreath

A series of h's are used to mark outbreath.

Ex. okhhhay, but it might get kind of busy

2. Inbreath

A series of h's preceeded by a dot indicate inbreath.

D: we should keep seeing you every week now. .hh And it might get kind of busy.

3. Laughter

A series of h's in brackets is used to indicate a plosive sound like laughter.

W: yeah I know (hhhhhhh).

V. Transcriptionist doubt

When utterances are in doubt, a single parenthesis is used to inclose the speech.

W: I know. ((laugh)) (That's what I was thinking).

When the bracket is empty, it indicates speech that was not intelligible.

D: then they need to be in .hh intensive care an... you know an ().

VL. Verbal descriptions

Details of the conversation or sounds that are difficult to spell are enclosed in double brackets.

D: When did that start ? ((clears throat))

D: Okay if you wanna come up here I'll just listen to the baby. ((15 secs - woman getting up on bed)).

APPENDIX C
MEDICAL INTERVIEWS

TEXT A

Tape recorded December, 1992

D : Doctor

W : 26 year old, English speaking woman with two children; 28 weeks, third pregnancy;
post-secondary education: college graduate; occupation: homemaker.

1 D: I'll turn this on ()

(4 secs)

2 D: How about you, did you have a good Christmas ?

3 W: Yeah. (I'm tired though)

4 D: yeah (hh)

5 W: ()

6 D: Today's the 29th.

(3 secs)

7 D: So you're about 28 weeks now ?

8 W: Yep

9 D: And a:h how are you feeling ?

10 W: Good

11 D: That's good . (1 sec) I guess this is about my first visit

with you cause Dr. Stevens was seeing you for all the other-

visits ... an he ordered a- glucose tolerance- test an th-

[[]]

12 W: Yeah

13 D: no- . have you had that done ?

14 W: Yeah

15 D: Oh there it is on this form

16 W: [[]]
()

17 D: Yeah- that was normal actually. (6 secs) Yeah that was done

December eighth. (5 secs) () I guess Maureen's

weighed you and taken your blood pressure- that's okay.....

18 W: [[]]
yep

19 D: Your last visit was december 1st so: . yeah bout a month ago

. so: you've gained about: . five an a half pounds. It's about

a pound a week average so: . a little extra () at

christmas.

20 W: (hhhhhh)

21 D: I'll let you lie down there .. ()
[[]]
((paper crinkles ++++++))

((cough))

22 D: Is the baby pretty active ?

23 W: Oh yeah

24 D: That's good.

(9 secs)

25 D: It's hard to tell if that's the head or the ()

an- everything can I go home the day after ?

40 D: Yeah there is an early discharge program . yeah

41 W: [[]]
 okay

42 W: Cause I might as well be home (really).

43 D: [[]]
 yeah

44 D: Cau.se- now you're rooming in with your baby right away unless

there's a problem. So what we do is fill out a form for the

VON nurse . um to come into the home to see you. They'll- they

usually come in a couple of times a day for a few days .hh an

45 W: [[]]
 yeah

46 D: you get some homemaking if you need it . like light

housekeeping (an stuff).

47 W. ())

48 D: Yeah. I find uh most of my patients have a couple ())

one or two kids at home (uhm an they often want the early

discharge program to get back there.))

((20 secs - noises +++++))

49 D: It's about one fifty-six.

((20 secs - noises - sounds like woman getting off bed))

50 D: So:: your next visit- will be in about two weeks actually

and I'm gonna be away then . for a couple of weeks so I don't

know if you want to see Dr. Stevens or uh the doctor who's

replacing me . Dr. Joan () . u:m . It may be easier

if you just see- Dr. Stevens cause you know him . an I'll be

[[]]

51 W: yeah

52 D: back by the time you're ready- to deliver which is in ah .

March

[[

53 W: in march (hhhhhhhhhhh)

[[

54 D: yeah (hhhhhhhhhhh) I'm gonna be here in March yeah

(hhhhh)

55 W: a:h If ah the birthing room's available .

56 D: Okay . yeah there's two of them now actually.

57 W: Oh is there ?

58 D: Yeah

59 W: Okay

60 D: Yeah so I'll make a note of that ... that you want the

birthing room.

61 W: I think with Rachael you got back an hour or so after I

had her.

[[

62 D: yeah

63 W: (hhhhh) . Maybe we'll get you (this is the last one).

[[]]

[[]]

64 D: I remember (hhhh)

65 D: Yeah (hhh) that's right did I miss your first one too ?

66 W: Yep

67 D: Yeah .. yeah we've gotta get co-ordinated on this, eh ?

68 W: I think you ()

69 D: Yeah . yeah it seems to me I missed at least- one of your .

() u:m yeah Dr. Ardetti (2 secs)

delivered- uh Rachael.

70 W: No Dr. Riley did that one.

71 D: a:hh

72 W: (hhhhhhh)

73 D: Yeah sometimes I can figure out by looking at the dates where

I was. I think ah in September '91 I was at a conference

I can't remember where I was for the other one.

74 W: (Well you know) I never had any- pain medication for Rachael

either so . (I try for this one)

[[]]

75 D : uhm

76 D: Okay . I'll make a note of that too.

77 W: I was wondering too (I've heard by the third one-) the

labour's usually a lot quicker.

78 D: Often it- (they'll) get faster . um .. You were two an a half

hours last time I guess . u:hm . tch it's so- it's not always

that way but h ah it's often each labour does get a little

faster u:m it depends on the size of the baby . this looks

like it's gonna be a pretty big baby.

79 W: Yeah I know (hhhhhh)

80 D: Anyway an your your glucose tests shows that you're not a
diabetic so that's good. I guess it's just a:h . you're growing
a big baby in there.

81 W: ()

82 D: Let's see if it stays at that- part of the curve- I would
suspect it would be around nine pounds . if you carry on=

83 W: =that's still not that bad considering- (the

) (hhhhhhhhhhh)

[[]]

84 D: yeah (hhhhh)

85 D: You think you can manage that (hhh)yeah u:myeah

I guess we'll just have to see . how your- size goes. If it

looks like it's getting- really huge we may have to get

an ultrasound done later tah . to estimate the size of the

baby um an I think it is head down so hopefully s- it

stays that way ... (it might not be okay) if it was a

breach or something we'd maybe have tah- worry about

[[

86 W:

There's

something I wanted tah ask you, my aunt a:h .. ()

my uncle's wife .. um she's . due in April . and uh .

[[]]

[[]]

87 D:

uhum

uhum

88 W: she's hemorrhaged three times . an they said- . uh she was

[[]]

89 D: uhum

90 W: in the hospital for a week an they said if she doesn't stop
she stopped but if she does it again they are gonna take
the baby . but they're gonna wait til the end of february.

91 D: [[]]

92 W: Well why would they (wait til)

93 D: They probably want the baby to mature a little more .

before they
[[
94 W: Cause if she bleeds they'd have to take it anyway, wouldn't

they ?

[[

95 D: Yeah if I guess if she has a really- serious- bleed . u:hmm

you know where it's life threatening to her an the baby then

yeah they'd probably have to=

96 W: =wha- what are the chances of it surviving . that ()

97 D: She's

due in April ?

98 W: April, uh, I think April the twentyth the twenty-third

99 D: Yeah .. cause right no:w=

100 W: =Cause she had- the two before they were both uh

tch . you know the placenta- . was
[[]]
101 D: uhum

102 D: Oh was . low down ?

103 W: Yeah

104 D: Oh that was- pl- uh placenta previa a low lying placenta.

.hh Yeah right now you see she'd only be about twenty-three
twenty-four weeks so the baby . right- now- wouldn't survive

.hh but by the end of: february it'd be about thirty-two:

thirty-three weeks so:: . who knows it's likely to survive.

Usually by twenty-five or twenty-six weeks the babies will

sur- survive an then they need to be in .hh intensive care an

.. you know an ()

[[

105 W: Well her other ones were premature too.

106 D: Is that right ?

107 W: They were three weeks .. which seems (strange).

[[]]

108 D: ummm

109 D: Well if you've had one or two premature babies previously

you're more likely to have another one so:

110 W: Like she doesn't she doesn't smoke or drink or anything

[[]]

111 D: no

112 D: No smoker's are more prone tah- problems like that like

bleeding an an early deliveries ... it's hard to know why

113 W: Whad I wanted- if this does turn breech I wanted to ask you

[[]]

114 D: uhum

115 W: . cause I'm always a bit worried about that . uhm . Do you try

to deliver a breech or do you- .. do you do a cesarean ?

116 D: [[It- yea:h . it
depends on the position of the breech. If: . if it's bum
down an the feet are up out of the way and it's not a really
huge baby .hh u:h particularly if the head's not really big on
the ultrasound . u:m then- we would try an deliver it- it
vaginally but a:h it looks like it's- it's a: really big baby
an if the head is significantly bigger than the rest of the
body on an ultrasound then- the obstetricians are a little
more hesitant to- .hh deliver vaginally because the

(head) is the biggest part of the baby . so:

it depends on a few things or if the if the feet are down um
[[]]

117 W: ()

118 D: if it's a (footlinn) breech which we- . we call a breech with
the feet down footlinn breach an if that's the case .hhh then
they don't deliver them vaginally cause the cord can come down
too an cause a problem.

119 W: That's what- (if) they had to do- . an emergency cesarean I
was just readin- Eric can't come in.

120 D: That's right if it's if your

121 W: [[Like if it's a planned one he can- . come in,

122 D: [[]] yea [[]] yeah

123 W: (we) don't have to worry about (anything).

124 D: No .hh no cause in an emergency one where you're under a
 general anaesthetic and asleep then, then he can't be in the
 room .hhh it's: pretty unlikely with your third baby to have
 to have a cesarean unless there was yeah- some problem where
 the baby- certainly had some- distress an- some problems- or-
 or if you had a- had a baby breech that wasn't in the right
 position or=

125 W: =Like another friend she's due . two days before I am . an .

126 D: [']
 uhuh

127 W: this is her third cesarean.

128 D: mmmm ... Yeah some people- have breech cesareans, we're doing
less breach cesareans as well.

129 W: They said her pelvis was too small.

130 D: mmmm Yeah sometimes that happens th the size of the baby
 proportionally is- too- big- for the- size of the woman's
 pelvis so

131 W. Yeah cause hers were both (baby's) over nine pounds .

132 D: ummm ... That is a big baby.

133 W: (hhhhhh)

134 D: Yeah . so- you know maybe if she'd had a smaller baby
 she would've been- been okay but- . anyway . no it's-

you know all things being equal, it's very unlikely that
you'd have a- cesarean section probably less than ten
percent chance.

135 W: I jus thought I'd ask (if you knew) . you never know=

[[]]

136 D: yeah

137 D: =You never know for sure that's just it. It's probably

(not a hundred percent) but it's a:h . I think the baby's
head's down an that will become more obvious as time goes
on as the baby gets bigger .hh an we'll jus keep following
the size an if: a:h

138 W: That doesn't mean it's gonna it'd stay head down though,
does it ?

139 D: Not necessarily. Usually if usually if they're at this

stage they uh they stay that way . yeah . um but nothing's

[[]]

140 W: they stay

141 D: nothing's (very clear on that) . I have one patient right

[[]]

142 W: (hhhhhh)

143 D: now her baby keeps turning from one position to another . so:

that can happen.

[[]]

144 W: Is she due soon ?

145 D: Yeah

146 W: Oh

147 D: So: some babies are unstable what we call an unstable lie.

They're breach one time an head down another time an- so that
becomes very unpredictable but I I don't see that very often
actually .hh

148 W: (hhhhh)

149 D: Anyway so:: I'll have you see Dr. Stevens in two weeks.

everything looks okay today . u:mmm .. I don't know if there's
any other questions you have or ?hhh We'll put down
early discharge.

[[

150 W: (if) I don't want them circumcised.

151 D: O:h okay I'll put that down there too. There's all these

little questions on the- pre-natal sheet we can fill in .hhh

152 W: An Eric will be in the labour room.

153 D: Yep . father delivery, ye:s: okay .hh

154 W: It's old hat for him (hhhhh)

[[

155 D: Yeah(hhh) that's right . he's

been through it a couple of times. Okay so: u:m: I guess I'll
end up seeing you in- it'll be one month from now cause Dr.

Stevens will see you in two weeks an I'll see you in two weeks

[[]]

156 W: okay

157 D: after that .. Oka:y an I guess you- have to fill out this

form here too- it's pretty quick.

TEXT B

Tape recorded April, 1993

D: Doctor

W: 27 year, old English speaking woman with one child; 39 weeks, second pregnancy;
post-secondary education: university; occupation: teacher

001 D: This is .. uhm:... tch Natalie's second pregnancy, ..and- she- is

... about thirty-six weeks- pregnant(right)

(1 sec) You're due the twenty first of May, right ?

[[

002 W:

Yeah a

month today.

003 D: So that make's you now .. hh thirty-six weeks . tomorrow

offically, according to the- . whee:l (1 secs) (hhfive)

[[]]

004 W:

uhuh

005 D: Baby's been active ?

006 W: Yeah

007 D: That's good ..hh Any problems or concerns since you were

here last ?

008 W: Well last time I was here it was breach ..an it- ..hh I

[[]]

009 D:

uhum

010 W: think it is again but it's turned about three times

011 D: You feel the baby turn right around ?

012 W: we:ll- the head- . I: can just tell where the head is, and sometimes

it's under my ribs .hh and sometimes I can feel it down here an it-
 where the movement is changes. Sometimes I feel the movement .hh up
 here and some(hh)ti(hh) sometimes I can feel it lower.

013 D: Okay. What we'll do then- I don't know whether if Sue had gone over
 with this with you last week but uhm . we'll check and see what
 position the baby's in right no:w. If the baby is that mobile it's
 probably to your advantage . because one of the .hh approaches to

014 W: [[]]
 uhum

015 D: a breach, at this point in your pregnancy at this time .hh would be
 to- have someone try and turn the baby from the outside.

016 W: But it'd just turn back right now, I'm sure.

017 D: [[
 That's a possibility .hh so

the timing of it, even if it was sortof in the next week to ten
 days .hh might be better than doing it right away .hh and you

018 W: [[]]
 okay

019 D: met Dr. Smith with your last pregnancy ? He's the only

020 W: [[]]
 yes

021 D: obstetrician in Wellington that does this. So it might mean-
 have- seeing Dr. Smith.

022 W: [[
 yeah, it would be worthwhile if- I'd think anyway

023 D: [[]] [[
 yeah yeah yeah

.hhh what we usually do is have you uhm . see him and he goes over

- how he does it and all the procedure and all the risks and benefits of it. He usually does an ultrasound in his office at the time
[[]]
- 024 W: uhm
- 025 D: to tell you how big the baby is and confirm what position it's in
an hh an talk to you about the different approaches to a breach delivery but uhm- so that's a- possibility and we should decide
[[]]
- 026 W: okay
- 027 D: today what position we think the baby's in for sure. uhm anyway-
Let's get your blood pressure. ((sound of cuff))
- 028 W: You have to excuse my breath I think- we had a- special lunch at school for our secretary ..(hhh) we had all kinds of things, ceasar
[[]]
- 029 D: ceasar salad (hh)
- 030 W: salad an ... It was delicious (hhhhh) it was great. I don't smell
[[]]
- 031 D: oh boy all the good things
very good.
[[]]
- 032 D: That's okay, don't worry about it. I think you notice that
more when you're pregnant .. have you noticed ?
- 033 W: Smells really
- 034 D: Don't worry. I'm not getting sick anymore (so that's good)
- 035 W: ()
- 036 D: Sorry I can't hear you with this stethoscope in my ears
(6 secs) That's good ...110 on 70 ... (cuff) Where it should be.

Okay come on over to the table please

((14 secs - woman getting onto the table))

Can you get on ? (2 secs) Do you want a sheet or something ?

(5 secs unintelligible)

037 D: Okay put your legs out straight for me (7 secs)

038 W: I think that's t... head

039 D: Yeah (3 secs) (That's the bottom here)

040 W: It's sort of- it's almost a () today

041 D: Oh I see what you mean () ... So it's sort of

[[]]

042 W: uhuh

043 D: lying across like this and that is down here but the bottom isn't
really into your pelvis...Sometimes that's really helpful.

044 W: oh that's good .hhh cause sometimes I can tell it's this way too

[[]]

045 D: when you think about turning uhuh

046 W: it's- (it turns alot)

[[]]

047 D: Okay. (5 secs) I don't think doing a vaginal exam

would be helpful because .hh if there's any part- whatever's done

lowest here .hh is actually fairly high still (okay) I'm pretty sure

that's the head up there just like you are. (2 ses)

How big was David ?

048 W: Seven ()

049 D: This baby seems to be about the same size er () about the

same size).

050 W: Oh that's good.

051 D: (Cold isn't it) (15 secs) ()

(6 secs) They say if the baby's breach, the heart rate's louder

052 W: Oh can you tell that ? Oh and it is

[[

053 D: (hhh) And it is. (hhh) It doesn't

always work though. (11 secs) (You can relax, it's okay).

054 W: I'm really (full) when I try to sit down. My ribs

[[]]

055 D: lots of

056 W: have....hhhhave no room- to- do anything.

[[]]

057 D: pressure up there

058 D: One twenty -eight ... which is fine, good.

059 W: The other thing I notice- sometimes especially when the head is

this way, I get very sharp pains .. down here

[[

060 D: uhum on both sides ?

061 W: Yeah- well more just- kind of at the bottom.

062 D: Does your abdomen go hard at all with them ?

063 W: I hadn't noticed that it was.

064 D: Your uterus is nice and soft and it's certainly not tender now.

.hhh The ligaments that support your uterus are in that area and it

may be that you're getting a bit of tension (sort of holding things

[[

065 W: Especially when I

stand up.

[[

066 D: yeah yep .. That's called the round ligament . and it's the

[[]]

[[]]

067 W: okay

kay

068 D: ligaments that support your uterus, they're actually aching there.

[[]]

069 W:

okay

070 D: It's not associated with premature labour or anything like that..

071 W: And it doesn't happen all the time, just-

072 D: It's more a positional thing. It depends on your position and the

baby's ()

073 W: kay

(1 secs)

074 D: What we'll do then is go ahead and make an appointment with Dr.

Smith for you .. and uh: as I said he'll do an ultrasound on

[[]]

075 W: okay

076 D: that day and see what position the baby's in right then.

077 W: Okay

078 D: And I don't think there would be a problem considering the size of

the baby .hhh and- It's so mobile right now if your appointment

wasn't you know till sort of seven to ten days .. and uh:... then

[[]]

079 W:

okay

080 D: what he usually does after he talks to you is .hh set up- uhm the

trial of version is done at the hospital in labour and delivery. .hh

- It's done under ultrasound again so he can monitor the baby the
 baby's heart rate all the time .hh and uhm I've been to the last
 [[]]
- 081 W: uhum
- 082 D: couple that he's done for us . for patients and uh .hhh he has
 better luck when the- when you've had a baby before and just
 [[]]
- 083 W: oh that's encouraging
- 084 D: depending on the position of the feet too. So he'll tell you that ahead
 of time what he thinks his chances are. .. Although sometimes I think
 [[]]
- 085 W: okay
- 086 D: he underrates himself. I think he- can do better than he
 [[]]
- 087 W: Well probably more just- to
 [[]]
- 088 D: yeah
- 089 W: make people feel better if it doesn't work.
- 090 D: Yeah probably. .hh Anyway, he'll talk to you about uh .. trial of
 labour or or what would be the approach if version do n't work
 too .. because neither Sue nor I do uh breach deliveries on our own
 [[]]
- 091 W: okay
- 092 D: We would have an obstetrician .. assist, .. okay ?
 [[]]
- 093 W: okay
- 094 W: uhum
- 095 D: Great. So everything looks good. (3 secs) Still- that's the same
 position as what Sue had last week. Anyway- the other thing we

109 W: okay

110 D: on if the baby's breach or .hh head down by this- time in a couple

[[]]

111 W:

uhum

112 D: weeks, but we'll go over it again. The third thing is if you are

having bleeding more than a period .. okay bleeding more than a

[[]]

113 W:

okay

114 D: period let us know. .hh It's normal to have pink discharge or brown

discharge or mucous mixed with blood but if it was more than a

[[]]

115 W:

okay

116 D: period then call us. And the fourth thing is probably most

[[]]

117 W:

okay

118 D: important. If there's something going on that you're not sure about

and you're concerned about then call. I mean don't sit at home and

[[]]

119 W:

okay

120 D: worry about things an .hh try to decide do I call or don't I call.

[[]]

121 W:

okay

122 D: I'd rather you just called than sat there and worried about it. And

that's it.

[[

123 W: It's just that- I remember the last time at night time I wa- both

times that we called . were in the night (hhhhh) .hhh an an it just

[[]]

124 D:

that's okay

125 W: is a little bit- I don't like tah- bother people- sleeping

[[]]

126 D: Don't worry.

127 D: It's easy for me to say I'm not gonna be here anyway. I'm gonna

[[]]

128 W: (hhhhhhhhhhhhhhhhhhhh)

129 D: be on maternity leave.

130 W: Go ahead. Call them, call them. (hhhhhhhhhhhh)

[[

131 D: yeah call them. No don't worry

about it really. .hh So: that's the other thing, I may not see you

again . If something happens in the next week or so I will but

[[]]

132 W: yeah::

133 D: otherwise I might not see you again .. and I'll just be back in

September to see your baby.

134 W: Yeah, we'll that's exciting for you.

135 D: Yeah yeah it's kind of- .. seems kind of

136 W: Do you have any- indications as to when ? like do you think

it'll be soon er ?

137 D: o:hh I ho(hh)pe it is (hhhhh) .. no I don't. No . I don't have

[[

138 W: yeah (hhhhh) (hhhh)

139 D: any- .hh any idea I'm just like the- regular patient.

[[]]

140 W: the rest of us

141 D: Yep just like anybody else. Anyway, so let's go ahead and

set up an appointment with Dr. Smith. I'd like you- to come

back in a week. We should keep seeing you every week now. .hh And

[[]]

142 W: okay

143 D: it might get kind of busy. Are you still working ?

144 W: I'm working for two more weeks after this.

145 D: [[okay it's gonna get kind of busy

because you might be seeing Dr. Maskins a couple of times and
us ... too in the same week.

146 W: That's fine. I've told them at the school that I may have more..

appointments... and that's fine.

147 D: [[okay okay]]

148 D: Let's go set that up then and uh: an appointment back here next week
with Sue.

149 W: okay

150 D: okay great

151 W: thank you. Well all the best to you.

TEXT C

Tape recorded April, 1993

D: Doctor

W: 22 year old English speaking woman with one child; 19 weeks, third pregnancy;
delivered first pregnancy at 24 weeks and died at two days; high school
education : grade 10; occupation: homemaker

001 D: So: how are you feelin today ?

002 W: Fine..

003 D: Good ...uhm

004 W: ()

005 D: Yeah You you had a cyst taken off there ? like a cybacious

cyst ? or something

[[

006 W: uhm ... I don't know it was: in(wards) anyways- like a hole.

It looked almost like a chickenpock mark but ... it had to do

something with my oil pores.

007 D: It was probably nice to get it off. Was it sort of buggin you ?

008 W:

[[]]

ye:s

[[]]

yeah

009 D: Well it certainly doesn't look- very noticeable now. uhm So you're

about nineteen and a half weeks or so ? now ? Your ultrasound

[[]]

010 W:

uhum

011 D: we did uhm .. what two weeks ago ? a week ago. And it was

[[]]

012 W:

uhum

013 D: normal an everything. The baby was a normal average size .hh an

looked healthy an everything an so . uhm... it basically agreed with
you date, so that's good. And uh:, have you felt the baby move yet ?

014 W: uhuh

(4 secs)

015 D: When did that start ? ((clears throat))

016 W: uhmmm ..About a week, week an a half ago I- .. (it'd be).

017 D: Okay: .. pretty neat, eh ?

018 W: Yea=

019 D: =Yeah. I'll just check your blood pressure. (2 secs) I see you've
gained some weight finally.

020 W: uhum

021 D: That's good (1 secs) Well I think it's good. Do you think it's- does
it bother you at all ?

022 W: No=

023 D: =No. So you've gained five pounds in total.. an three and a half
since the last time you were here which is good. (6 secs)

((blood pressure cuff being pumped))

All the way up to a hundred pounds (hhhhhh) ((4 secs - pressure cuff))

That's- the blood pressure's good. (2 secs)

Okay if you wanna come up here I'll just listen to the baby.

((15 secs - woman getting up on bed))

024 D: How's your other little one ?

025 W: Quite good. (He's got pink eye.. in both of his eyes. He woke up with it yesterday).

026 D: (it's a hard) a hard little uh- uterus there. you're so slim it's easy to- .. feel it.

027 W: ((unintelligible))

028 D: ()

(10 secs)

((sounds like moving chair))

(8 secs)

029 D: That's good

((16 secs))

030 D: ((unintelligible that's good))

031 W: ()

032 D: (you're coming along there) (3 secs) Nice to hear, eh ?

033 W: (uhuh)

034 D: Actually its- once you can feel the baby moving it's a little

easier... here I'll just help you off. I found that-
((woman getting off the table))

that your uh your first three months, three or four months before you

feel it, you sort of- ... kind of- kind of worry if its really- if

its really in there, eh ? You start feeling it kick, that's- that's

pretty exciting. (1 secs) So it had grown well ...15 centimetres.

(5 secs) Probably be- about the size of your other one I would

guess. Okay. .hh Did you have any concerns about anything or questions er ?

035 W: No (hh)

036 D: No ? Okay. You've been through this before.

037 W: [[]] [[]]
 no yeah

038 D: Good. Okay well the only thing is ..might wanna check your uhm

hemoglobin just cause it hasn't been done since you were a' Dr

Morrison's office. (3 secs) You can just take that down to the lab .. you can take that there.

039 W: More needles

040 D: More needles, yeah and uhm (3 secs) An we sh we should see

you back in four weeks unless you have any concerns or anything before that

041 W: uhum=

042 D: =uhm ... Probably should have you meet uhm (3 secs) (When are you due ?

.. end of sept ?) .hhh You haven't met Dr. Tucker have you ?

Who's working for Dr. () with us, with Dr. Ardetti and I right now?

043 W: No I haven't.

044 D: You can meet her in four weeks an then I'll see you again after that.

045 W: Okay

046 D: Okay ? .. She's just being on call.. probably not when you're due

actually, I think she's away in August .hh but in case anything

happened early, she's here till the end of July... okay ?

(2 secs) Good (1 secs) So- I'll see you in eight weeks and she'll
see you in four weeks.

047 W: okay.

TEXT D

Tape recorded April, 1993

D: Doctor

W: 25 year old English speaking woman; 39 weeks, first pregnancy; high school education; occupation: cashier

001 D: I'll I'll just say this is Sherry and she's having her

first baby .. kay....so: You said you were feeling pretty

[[]]

002 W: uhuh

003 D: well .. That's good. .. An you're one week away ? maybe ?

[[]]

[[]] [[]]

004 W: uhuh one yeah

005 D: thirty-nine weeks ?

[[]]

006 W: about that yep. (hhh)

007 D: Have you had any problems or concerns about anything ?

008 W: ahhh Nothing really (no i don't think so).

009 D: That's good. Baby been active in there ?

010 W: uhm Yeah. But not as much anymore a as in the beginning .. I don't

know if there's less room..

[[]]

[[]]

011 D: it's:: There is less room a an an it's uhm . very

normal that it's not its:: . big movements that you feel .hh but you

[[]]

012 W: uhuh

013 D: still should feel it every day. An we usually tell people that- .hh

Some people really don't feel it hardly at all cause it's so packed

4 of/de 4

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

in there an an you really uhm, if that happens an you don't really
 feel it then it's important to uhm .. hhh lie down for an hour,
 usually on your side, that's the bes:t- probably way to lie down
 anyway .. and uhm if you don't feel the baby moving all day then

[[]]

014 W: yeah

015 D: just to count movements for an hour and there's usually .hh at
 least five in an hour unless the baby's asleep. If the baby's
 asleep you should count the next hour cause they don't usually
 sleep for more than an hour .hhh hopefully that doesn't la(hh)st

[[]]

016 W: right

017 D: after they're born (hhh) b(hh)ut (hhh) only to do that if you-

[[]]

018 W: yeah really

019 D: if you- if you don't feel them after the second hour then to call us

but only if you don't feel it much at all ..so

020 W: No it's moving around so

021 D: Well that's good. .hhtch a:nd .. You haven't gained any weight

(2 secs) You're: .. sticking at one fifty-nine, eh ?

022 W: (okay hhhh)

023 D: you've been at- for- three..... three visits .. and only

eleven pounds altogether.. Teresa- but- the baby's-

[[

024 W: I'm quite active though

[[

025 D: Yea you've

026 W: that's my problem (hhhh) though I never sit down. (hhhh)

027 D: been busy.

028 D: uhm . Have you been eating ? or 've you been sick or anything ?

029 W: No no

030 D: Do you have any concerns about your weight ? er .. in general
like about gaining weight or not gaining weight er

031 W: mmm .. No I just don't- I don't know. The last time my doctor
said it was- hh it was .. normal. I guess I don't know.

032 D: Yea some people just don't
gain as easy as others.

033 W: don't gain- yea- but I always consider myself to be like
overweight anyway so..

034 D: Yeah .. well what you were, when you started you mean

035 W: Yeah

036 D: Yeah

037 W: I was like- ten pounds overweight or something

038 D: Ma: ybe . you're five four and one forty-eight ?

039 W: Yeah

040 D: But uhm... being pregnant is::

041 W: (I still....I still eat)

042 D: you still eat well

cause that's that's that's all I just wanted to be sure because

[[]]

043 W: I still eat hh

044 D: When you're when you're pregnant e: even if you're overweight it's
 ah or whatever you think overweight is .hhh uh you still need to eat
 a lot . it's not the time tah- to worry about your weight
 unfortunately . but it's hard not .hh considering your body changes
 so much.

045 W: It's just ah- I don't put weight on fast I guess.

046 D: Yeah

047 W: I eat and then I just- clean up. an I'm always doing something
 after..I finish so..

[[]]

048 D: yeah

049 D: Even now ?

050 W: Yeah

051 D: It hasn't slowed you down too much.

052 W: It has- it hasn't slowed me down at all (hhh). Sometimes

[[]]

053 D: Yeah that's good.

054 W: I have to take a break. I have to sit down.

055 D: Well you look good.

056 W: Thanks a lot.

057 D: That' s probably one of the reasons you're you're feeling well

also .. you haven't gained .. too much. Sometimes- .. some people

[[]]

058 W: uhuh

059 D: that put on forty or fifty pounds and they ... they find it

[[]]

060 W: uhuh

061 D: difficult to do things at the end.

[[]]

062 W: move around

((12 secs - blood pressure pump))

063 D: I'll take your blood pressure here.

(4 secs)

064 D: That's good

((pressure cuff ripped off ... 7 secs))

065 D: Have you had any signs of labour ? er .. well obviously not

labour, you don't loo(hh)k like you're in labour but any any

[[]]

066 W: yeahhh

067 D: any bleeding or change in discharge or anything like that ?

068 W: No just a lot of uhm- ...tch I guess a lot of (braxton hicks)

069 D: right tightening

[[

070 W: lots of tightenings, lots

071 D: uhuh Well that's pretty normal and it tends to be more common

when you're busy so ... maybe that's one of the reasons you're

[[]]

072 D: yeah

073 W: getting lots....hh Okay we'll get you to come up here an just

listen to the baby.

((22 secs - woman getting up on the table))

(16 secs)

074 D: (its way back there I think).

075 W: I think so

076 D: Do you feel a lot of pressure down below when you're ()
or anything- the head feels really low there.

077 W: Yeah I know.. a lot of people still say ah you're so (low
you know hhh)

078 D: People people will say- just about anything ()
Does that bother you at all ? If you're hearing this way
or that way () or it's a boy or girl (hhhh)

079 W: Yeah I get that too.

080 D: It actually feels quite low . so probably won't go much
lower before your labour starts. It's not a sign of when
your labour starts unfortunately. You can't say well it's low
that means you'll have the baby next week.

081 W: No right.

082 D: but its a good sign that tends to be ()
probably be more .. a more effective . like- a more normal
labour. If it's starting low .. you know its (ready) to fit, its
a faster labour.

(19 secs)

083 D: One thirty .. I'm not very good at ta(hh)lking and counting

at the same time.

084 W: (hhhh)

085 D: So a hundred and thirty ... Some days I am .. its probably my

(3 secs) () (2 secs) I don't routinely do

an internal when you're when you're close unless we're not sure

where the head is or ... if you had some questions about

[[]]

086 W: right

087 D: being in early labour or something .hhh If you uhm pass your

due date we probably would ... just to get something going..

sometimes by stretching your cervix a little bit but .hh uhm ...

tch it's quite normal to go:: uhm over your due date, that's just

an approximation an unfortunately it quite commonly comes and goes

.hhh and uhm ...tch an if it does in a::h in the second week like-

[[]]

088 W: uhm

089 D: going over one week is quite normal. If if you did ... ah more than

that we tend tah- watch the baby with a heart rate test- a non-

stress test () but that's that's a couple of weeks away.

[[]]

090 W: uhum

091 D: Chances are you .. tch could well have the baby by then. (1 secs)

Could be an Easter baby (hhh)

092 W: (Easter - to celebrate all the

family will be up hhhhh at my house) (2 secs) (

breastfeeding. but I mean just in your first few weeks .hh then it

102 W: [[]]
yeah

103 D: probably doesn't hurt to take a vitamin .. while you're breast
feeding. But if you're eating well then just ah yeah just plain
iron is fine. It's a lot cheaper than ...

104 W: () (4 secs)

105 D: if you have those days when just- you know ... craft dinner or
some(hhh)thing is all you can manage..

106 W: yeah I find I can't eat large .. like I eat small .. and then
maybe a couple of hours later I'll have something else to eat.

107 D: yeah ()

108 W: if I get hungry () then I'll eat.

109 D: Good. Okay, so another week .. uhmtch who shall you see
next week ? (2 secs) uhm (you saw Dr. Scott) last week.
Maybe Dr. Ardetti I guess. She's trying to hang around until the
end of April. We're trying to tell her that maybe she (hh) maybe she
won't (hhhh) maybe she shouldn't.

110 W: You know the uhm ... twins in the newspapers (the
three sets of twins

111 D: [[
Yeah Dr. Smith had them.

112 W: Yeah the first couple uhm she was in my pre-op class.

113 D: Yeah ?

114 W: Yeah. They all thought I was gonna go first but she knew

(she had twins).

115 D: Twins often go a little early.

116 W: Yeah (She was due in may. She went a month early).

(5 secs)

117 D: Okay so:: ... another week and then Dr. Ardetti.

118 W: Kay

119 D: Good, thanks.

TEXT E

Tape recorded December, 1992

D: Doctor

W: 26 year old English speaking woman with one child; 35 weeks, second pregnancy;
post-secondary education: college; occupation: addiction counsellor

C: child

001 D : It's supposed to be just very- unobtrusive there

002 W: (laugh) You're supposed to forget ()

[[]]

003 D: yeah

004 C: ()

005 W: (mommy)

[[

006 D: (Alex are you gonna sit

on the floor).

007 W: (Are you gonna complain ?)

008 C: ah

009 W: ()

010 C: am: am: ah

011 ? : (I'll get my) (4 secs)

012 D: So: you're about thirty five weeks now, I guess

013 W: Yep

((noise - sounds like paper crinkling on bed))

014 D: and

015 W: What was my weight ... last time ?

((crinkle+++++))

[[]]

016 D: uhm::

017 D: Your weight was a hundred and ninty-five and a half pounds

last time and it's a hundred and ninty-seven- today so you've

only gained- a pound and a half actually since- since the

[[]]

018 C: uh::

019 D: fifteenth.

020 W: That's good considering Christmas=

021 D: =Yeah- yeah actually .. most of my patients seem to gain a

bit more weight over Christmas an .. (an quite

[[]]

((crinkle))

a bit after it..... Are you up?)...... So is the baby

nice and active ?

022 W: um Slowing down a bit now .. more the- the rolling . than-

[[]]

023 D: yea

024 W: the turning you know, it's not so much that- like the

kicks ...an things like that. It must be gettin bigger ..

[[]]

025 D: yea

026 D: Yea

027 W: Is that okay down there ?

028 D: Yea, that's great I'll just uh- check the position of the

baby here ... Yea it feels like the head (is definately right-

down- here) .. (the it seems also like
a little foot right here).

029 W: Yea I would imagine (that was there last time) ((hhhhh))

030 D: Yea (I think there- baby's definately head
down there.)

031 W: (OkayYeah don't let him down)

032 D: [[
(We'll keep an eye on him).

033 W: ()

034 D: thirty- three- centimetres ...

035 D: (Here comes Alex Yeah I wonder if that's- ..

We'll just maybe move the (papers) out of Alex's
whhhay hhhhhere.

036 C: uh

037 D: (pregnant when you
were at thirty four..... you've come down a bit).

038 W: hhhh I'm still getting that hh- I had it with Alex with
that- I get that burning sensation right at the top of my
uterus on either side.

038 D: mmmmm

040 W: Just like burns . I don't know what it is.

041 D: Is it- on the skin do you think ? or is it more-

042 W: It's like underneath=

043 D: =underneath

044 W: Yea

045 D: (I know some patients get a) numbness through there-

there's pressure on the nerves rig' under the- ribcage

..uhmm... I had some- who was it- that had- (had

it right on the bellybutton) she had some swelling and

[[]]

046 W: oh

047 D: numbness and I think it's just from stretching on some nerves

..hh and you can have some ..(pain down in the lower quadrant

[[]]

048 C: ((au:h ++++++))

049 D: from ligaments stretching)

050 W: It's just cause it- well- I can't ge- find it now but

even- like I can be sitting there and just pu push there you

know)

051 D: It's just sort of above the uterus there ()

052 C: a:hh

053 W: I just couldn't remember when Nancy (last time).

[[]]

054D: yea

055 D: I think- usually either it's that or it's just from uh (some nerves

[[]]

56 C: ((aoo:hh ao:hh ++++++))

057 D: stretching) you know the uterus (is) right up

near the diaphragm ...and the ribcage.. Your uterus itself

[[]]

058 W: uhm

059 D: doesn't feel firm or tender or .. anything.

060 W: [[
no no.....like everything

else is fine I just- feel it once in a while so I thought I'd

061 D: [[]]
uhuh

062 W: ask.

063 D: That's interesting, you've had it both times then.

064 W: Yea

065 D: (We'll get you off here)
[[]]
((crinkle of paper))

066 W: And th- for an- if you have to- you probably have to do an
episiotomy again, right ?

067 D: Well not always the second time around actually, once

068 W: [[]]
oh

069 D: you've had- one baby often with the second one .. that-

tissue and the perineum (is) more stretchy and often

070 W: [[]]
Oh okay

071 D: we can get away with . you know a smaller episiotomy or- a

small tear- or sometimes you (don't even have-) if we

just let the head come slowly (during the delivery). It

depends a bit on the size of the baby too ... um he's a pretty

good size.

[[]]

072 W: uhuh uhuh

073 W: Yeah ...an do you do it in the same place usually ?

074 D: Yeah (if if we do it it would be normally)- we we do it
over the same scar line.

075 W: Yeah

076 C: au:h

((20 secs - noise sounds like child playing with toys))

077 D: (seventy eight, that's good)

078 W: ()

079 D: yea

080 W: (Can I get down now) ?

(10 secs)

081 D: Yea

082 W: Hello ()

083 C: ma:mmy

084 D: S:o: you know your visits are actually every week . umm=

085 W: =Okay . starting like my next one will be in a week=

086 D: =yeah=

087 W: =okay

088 D: um Because once y- once you get thirty six weeks which
will be next week we start seeing you every week . and the:n

089 W: Do I do blood work every week still ?

090 D: uh:m Actually you don't have to because uh

091 W: Oh really ?

092 D: Yeah your hemoglobin's- been great.

093 W: Yeah

094 D: So there's really no point in taking it every week

095 W: And what does that mean ?

096 D: That your hemoglobin's

097 W: great=

098 D: =great? It's ()

099 W: [[Bernie always says that . "It's great".

100 D: [[]]
yeah

101 D: It's been- well- normal is sort of one- for women it's

like one twenty to one forty-five maybe one fifty and in

pregnancy we often see it drop . and you've- actually you

started at one thirty-seven and you actually went up a

little bit there . to one forty-one- you've stayed- between

one thirty and one forty-two e:r sorry one forty-one with

the hemoglobin so you've never become anaemic in this

pregnancy. You've never- showed any signs of having low iron

102 W: Okay .. which means I'm healthy

103 D: Yeah . yeah

[[]]

104 W: okay

105 D: Yeah there there's some women that go quite low with their
 hemoglobin. We have to put them on extra iron like um ...
 (we have) try to get their hemoglobin up before delivery
 because we don't really like- you to have a low hemoglobin at
 the time of delivery in case there's- hemorrhage afterwards
 (with you know . it's) a- bigger problem . an . um . if
 you're hemoglobin is like at- less than eighty after the
 delivery I've sometimes had to transfuse patients s:o

106 W: oh

107 D: We don't do it very much anymore . (we don't do

[[]]

108 W: yea

109 D: that many transfusions but)

[[

110 W: So Bernie uh uh just looks

at that number.

111 D: Yeahyeah . it would be very unlikely, you'd have to

bleed a lot to get down to eighty.

112 W: I'm just trying to remember with my uh six week check-up-

just be gentle Alex- did- we did blood work an stuff then ?

113 D: Yeah yeah we ususally check it again.

[[

114W: what was it like then do you remember ?

115 D: uhm

116 W: (You won't remember)=

117 D: =Yeah it's on- it should be on your lab report here (2
secs) (When was Alex born again ?)

118 W: uh December twenty first, so it was january . uh the end of
january.

119 D: Yeah it was (one thirty one).

120 W: Oh so it was still good.

121 D: Yeah

122 W: Cause wh- that was when you were kinna concerned

I was bleeding a lot (an that had stopped so)

123 D: [[]]
yeah

124 W: Yeah it was right at one thirty (one so).

125 W: Okay.

126 D: Yeah so you've never ()

127 W: [[
I just wondered if it (had dropped at
that point then) you know if it was going to that probably
would have been the time.

128 D: () look at your last pregnancy.....

Yeah your loss was one- you went a little low that time one
twenty but- (but you're within normal range so)

129 W: Okay

130 D: () and then ((clears throat)) I'm gonna be
away ()
[[

131 W: yeah from the tenth to the- twenty-fifth or something

132 D: Yeah

133 W: Yeahhh

134 D: Yeah so Dr. Jill () is covering for me so she'll
see you after the next visit.

135 W: Okay so she'll be doing my internal then.

[[]]

136 D: I'll be

137 D: Yeah I guess- yeah probably around three weeks (it'll be
three weeks).

138 W: uhm What's she like ?

139 D: She's really nice.

140 W: Is she ?

141 D: Yeah

142 W: Okay

143 D: Yeah you'll really like her.

144 W: Cause last time it was .. what was her name ? um ()

[[]]

145 D: She's great.

146 W: had her .. Who was- that- doctor that- did Christmas for
you last year ? I can't remember what her name was now.

147 D: I don't know .. um I don't see her writing on the last
chart either.

[[]]

148 W: Mary something ?

149 D: It's not Karen- Karen-Lee was it ?

150 W: [[no . umm

151 D: Dr. Evans was it ? Peggy Evans ?

152 W: no-

153 D: oh (wait) oh Mary Lynn Gordon (probably)=

154 W: She had a two

155 W: =Yeah that's who it was . yeah Dr. Gordon... cause she
just checked me so I could- leave.

156 D: hhhhh

157 W: I said to the nurses "Call this doctor. She's not coming in
an I wanna go home".

158 D: O:h . you were in labour and delivery then, were you ?

159 W: So she

160 W: No that was after . cause you had- you delivered Alex an

161 D: [[]] [[]]
 oh o:h

162 W: stuff an then . I wanted to go home like it was a couple

163 D: I see

164 W: days after an she hadn't come in tah- (see me) yet . so:

165 D: [[]] [[]] [[]]

 right a:h oh right

166 D: So you delivered just before christmas ?

167 W: ((clear throat)) Yeah an you left ()

168 D: [[]]
yeah

168 D: yeah

169 D: Well hopefully I won't miss this one either hhhhh

170 W: I don- I:: really think this one's coming early.

171 D: Do you ?

172 W: Yeah .. just a- feeling that this one's:: . gonna be early

173 D: unimm (I don't remember if I have the right)

174 W: [[]] so we'll see

175 D: (You'll be really disappointed if it's late then) ((hhhhh

hhhhhhhhh))

176 W: yes I will. I have to keep telling myself that. (That this
baby will come when it's ready.)

177 D: Yeah

178 W: Oh we'll

179 D: Did you have a fun christmas ?

180 W: Yeah . yeah

181 D: What did Alex think ?

182 W: He liked it . he li- he liked the people more than anything

183 D: [[]] mmmm

184 W: else but- . we: um: . we had fun . I'm tired. I have this

185 D: [[]] yeah [[]] uhm [[]] yeah

186 W: week off which is really nice so: . I- Alex an I will have

some time together just the two of us cause I (don't have to

work). I've been sleeping when you are, haven't I . (cause)

[[]]

[[]]

187 D: o:h hhhh

188 W: I've been really tired .. an just the commotion (I think
[[]]

189 D: yeah ()

190 W: an and anyway so)

191 D: [[yeah yeah yeah it is a tiring time

192 W: Yeah

193 D: () So when do you finish work ?

194 W: u:m . Well the 29th if I- hh last that long I'm gonna work
[[]]

195 D: uhum

196 W: right up . so' cause I figured- if I'm at home I'm
[[]]

197 D: yeah

198 W: gonna be .hh waiting . an then I'll probably be more
[[]]

199 D: uhum

200 W: anxious so I'd rather work .hh an I'll probably- I have to
take some of my holidays so: . I'll take maybe a day a week
or something . jus so that I've got some time to be home an
hh all that stuff but the baby's room is all ready (
). so we're doin good.

201 D: yeah

202 C: a:h a:h

203 W: the other baby's room

204 D: ((hhhhh)) yeah

205 W: the other baby.... I'll be busy

206 D: (yeah you'll be busy.. two, one right after the
other hhhhhh)

207 W: He's just startin to walk now which is good cause- there's

[[]]

208 D: yeah

209 W: no way I can carry two of them.

210 D: No: (hhhhhhh) .. (You're lookin really good).

211 W: Yeah well thanks.

[[

212 D: Your welcome ()

[[

13

213 W: So next week ?

214 D: yeah=

215 W: =okay.

END

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FIN