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# Informing Traces: The Social Practices of Collaborative Informing in the Midwifery Clinic

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# Collaborative Information Behavior: User Engagement and Communication Sharing

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# Chapter 12

## Informing Traces: The Social Practices of Collaborative Informing in the Midwifery Clinic

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### ABSTRACT

*The concept of “traces” is useful for understanding the collaborative practices of informing. Readers of documents leave traces of their use, and institutional talk embeds traces of collaborative work, including work done and elsewhere and at other times. This chapter employs a multifaceted qualitative strategy of analytic bracketing to analyze traces in midwives’ and clients’ discussions of clinical results. Results are used to identify and evaluate trends in relation to the current case or to universal norms. Conflicting forms of evidence may need to be negotiated. Barriers may arise when results or sources are inadequate or unavailable. Midwives and women manage these barriers by flexibly assigning the role of information provider in official and unofficial ways. The analysis of traces provides insight into the hows and whats of collaborative work and reveals it to be a complex set of practices that go well beyond the immediately visible contributions of others.*

### INTRODUCTION

The concept of “traces” or “footprints” is a useful one for the study of the collaborative practices of informing (see, for example, Foster, 2006, pp. 340-347). Documents may be seen to carry the traces of the subjects and objects they describe (Frohmann, 2008), and users of physical or digital documents may leave behind evidence of

their use that is taken up by subsequent users as informative. Through the inscriptions made by previous authors and readers, documents used in collaborative environments can record, mediate, and co-ordinate the work of those who are invested in a single project though they may be responsible for different tasks, located in different places, and held to different timelines (Davies & McKenzie, 2004).

Although they may not be preserved in documentary form, traces are also evident in interper-

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sonal interactions, as when speakers invoke past experiences or outside sources as informative for the present occasion. The objective of this chapter is to analyze the ways that midwives and child-bearing women produce, take up, call on, and use references to people, places and events outside of their here-and-now interaction as they collaborate in presenting, discussing, and interpreting clinical findings. Analyzing institutional talk can reveal traces of work done in other places or at other times (Smith, 1990; McKenzie, 2006) and can show how the institutional work of informing is necessarily collaborative even when it appears not to be (McKenzie, 2009). The analysis of traces provides insight into both the *hows* and the *whats* (Holstein & Gubrium, 2005) of “the intertwined, institutionally disciplined, documentary and non-documentary practices from which ‘information’ emerges as an effect” (Frohmann, 2004, p. 198).

## BACKGROUND

Several LIS studies have considered the work of people who gather together over time in formal and informal groups such as departments, communities of practice, task forces, crews, and teams. LIS researchers have attended to the temporal situatedness of information-related activities (Solomon, 1997; Savolainen, 2006) and have considered the development of collaborative projects over time (e.g., Hyldegård, 2006). Traces become useful for participants to situate themselves in the ongoing trajectory of the collaborative endeavour (e.g., Sonnenwald, Maglaughlin, & Whitton, 2004; Hertzum, 2008). They also allow those not physically present to contribute to the business at hand, as people, institutions, and interests may be brought into the conversation through spoken invocation (McKenzie & Oliphant, 2010) or through documentary traces such as the medical record (Davies & McKenzie, 2004).

A visit to a health care provider’s clinic is a single occasion but is also a member both of a

longer series of such occurrences and of a more extensive set of social relations (Smith, 1990). Research on clinical interaction shows that health care providers and their clients provide and use traces of the encounter’s place in a larger series of events in many and diverse ways. Both providers and clients orient to their past and future dealings together and situate the current discussion in relation to the previous knowledge that each is held to have. Robinson (2006) showed how a doctor’s invitation to a patient to present a concern contains cues about the history of the relationship and reminders about who knows what about what has taken place before. Failing to attend to the visit’s position in the ongoing physician-patient relationship (for example, by asking “What can we do for you today?” rather than “And how has the pain been this week?”) has implications for the effectiveness of the interaction. Heritage and Robinson (2006) found that, in order to show that they have made all reasonable attempts to solve a problem before seeking the doctor’s assistance, patients may provide a narrative of self-diagnosis and problem solving that begins in the past and culminates in the present of this visit to the doctor. Maynard (2003) analyzed the ways that people in clinical and everyday settings establish an announcement or a diagnosis as “news” by presenting and responding to it in particular ways. The news delivery sequence may include a pre-announcement that not only alerts the hearer to expect news, but prepares him or her for its positive or negative valence (e.g., “I have some good news about your test results”). Serious communication problems can arise when the newsworthiness or the valence are not taken up in the same way by speaker and hearer. West (2006) found that clinicians do the work of providing “continuity of care” partly through closing visits by making arrangements for what should happen next between the participants. Even sociable non-instrumental talk bears traces of the interpersonal relationship between care provider and client (Ragan, 2000).

LIS research on collaborative information seeking in medical settings has largely been set in critical or emergency care contexts (e.g., Gorman et al., 2000; McKnight, 2007; Reddy & Jansen, 2008; Reddy & Spence, 2008). Not surprisingly, therefore, these studies have focused on the work of health care providers and not on the contributions of patients. This chapter will build on this research by showing how practitioners and clients collaborate to bring the interaction into being, and how their work links to work done elsewhere (Smith, 1990). For example, diagnosis and treatment recommendation are often considered to be the work of the health care provider. However, conversation analytic research has shown that the patient is an active collaborator in both processes (Brooks-Howell, 2006; Stivers, 2006), and that her or his seemingly inconsequential responses can have important implications for the way they proceed. The simple receipt token “Oh,” when used instead of “Mhmm,” can serve the interactional function of indicating that a hearer treats what has been said as news and is now, for the purposes of this interaction, informed on this issue (Maynard, 2003, p. 101; McKenzie, 2009).

Rather than looking at the ways that “information tasks” are “performed in collaboration with others” (Foster, 2006, p.350), I start from the premise that “information” itself is constituted out of social practices – the interaction of people and documents, co-present and absent, past and future (Davenport & Cronin, 1998; Frohmann, 2004; Smith, 1990). I therefore take an approach that allows for an analysis of what Holstein and Gubrium (2005) call “interpretive practice”:

*the constellation of procedures, conditions, and resources through which reality is apprehended, understood, organized, and conveyed in everyday life.... Interpretive practice engages both the **hows** and the **whats** of social reality; it is centered in both how people methodically construct their experiences and their worlds, and in the configurations of meaning and institutional life that inform and*

*shape their reality-constituting activity (p. 484, emphasis in original).*

This chapter will demonstrate how interactional traces, defined here as direct or indirect reference to people, organizations, or interests outside the confines of the here-and-now clinical interaction, serve as a) resources for participants in doing the work of presenting and discussing clinical findings; and b) evidence for researchers analyzing the *hows* and *whats* of the practices that enable people to collaborate in doing institutionally mandated information work.

## **METHODOLOGICAL PROBLEMS AND SOLUTIONS**

### **Theoretical Issues and Controversies**

Several recent studies of collaborative information seeking (Foster 2006, p. 350) have used contextual qualitative methods. Holstein and Gubrium (2005) describe the strengths and limitations of two contextual qualitative approaches that focus on the “the interactional, institutional, and cultural variabilities” (p. 492) of the constitution of social life in and through discourse.

Ethnomethodologically-informed analysis pays close attention to the *hows* of social life: “the mechanisms by which social forms are brought into being in everyday life” (p. 484). Developed by Harold Garfinkel (1967), ethnomethodology “arguably has been the most analytically radical and empirically productive in specifying the actual procedures through which social order is accomplished” (Holstein & Gubrium, 2005, p.483). Ethnomethodological approaches focus on how people “do” social life and on the kinds of socially contingent, practical reasoning they use to do so (Holstein & Gubrium, 2005, p. 485). Methods attend closely to naturally-occurring talk. An indifferent stance to members’ methods means

that ethnomethodologists accept members' practical reasoning as adequate to the task at hand rather than critiquing it against some external criterion (Holstein & Gubrium, 2005, p. 487). Holstein and Gubrium (2005) caution that this indifferent focus on the *hows* of talk-in-interaction means that ethnomethodological analysis fails to attend to the meaningful *whats*: "the massive resources that are taken up in, and that guide, the operation of conversation, or... the consequences of producing particular results and not others, each of which is an important ingredient of practice" (p. 492).

Foucauldian discourse analysis, on the other hand, attends to the *whats* (Holstein & Gubrium, 2005): how historically and culturally located practices -- "discourses" -- "systematically form the objects of which they speak" (Foucault, 1972, p. 48). Discourses in the Foucauldian sense are not simply rhetorical constructions, but broad systems of power/knowledge. For example, the physical design of the penitentiary and its documentary apparatus of timetables and regulations constructs inmates as the objects of moral discipline and rehabilitation (Foucault, 1995). Foucauldian analysis therefore makes visible the results and conditions of possibility of discourses, but pays little attention to real-time talk and social interaction and "provides little or no sense of the *everyday* technology by which [the birth of new discursive formations] is achieved" (Holstein & Gubrium, 2005, p. 491).

While Holstein and Gubrium concede that these two perspectives come from different intellectual traditions and work in different registers -- and are often presented as mutually exclusive (e.g., Budd, 2006) -- they contend that qualitative research would be enriched by an "analytics of interpretive practice" that retains ethnomethodology's sensitivity to the *hows* of interaction while attending to "both the constitutive and constituted *whats* of everyday life" (Holstein and Gubrium, 2005, p. 489).

## Methodological Solutions

Holstein and Gubrium (2005) advocate a form of what they call "analytic bracketing," a "skilled juggling act, alternatively concentrating on the myriad *hows* and *whats* of everyday life" (2005, pp. 495-496). Analytic bracketing requires the researcher alternately to focus on both facets of interpretive practice, "documenting each in turn, and making informative references to the other in the process" (Holstein & Gubrium, 2005, p. 496).

In this chapter I use three analytic strategies to bring Holstein and Gubrium's (2005) analytics of interpretive practice to the domain of LIS. This methodological approach can provide new understanding of both the *hows* and the *whats* of collaborative practices of informing in an institutional setting. This chapter will demonstrate how passages of naturally-occurring talk contain traces to past and future times and to the activities of other people in other places. The analysis of both provides insight into the ways that traces contribute to participants' business at hand and serves as an analytic model for identifying traces in other settings and contexts.

## Data Collection

Data come from transcripts of audio-recordings of 40 midwifery clinic visits. Midwifery in Ontario is a licensed and publicly-funded direct-entry profession (i.e. midwives are not required to be nurses, Bourgeault & Fynes, 1997; Bourgeault, 2006). Ontario midwives provide continuous care to low-risk women through pregnancy, home or hospital birth, and for six weeks postpartum (Association of Ontario Midwives, n.d.). Informed choice and continuity of care are foundational to the midwifery model (College of Midwives of Ontario, 2004). These principles have important implications for the study of collaborative information seeking. First, midwives are mandated to inform childbearing women to support women's



decision-making (McKenzie, 2009). At the same time, the woman is taken to be the expert on her own body, situation, and preferences, and has the right to inform her midwife on these issues. Second, this mandated informing takes place within a developing relationship between the woman and her primary and backup midwives.

I purposively selected Ontario communities to include a range of populations. I contacted all practices in each selected community. Fifteen agreed to participate: five from the city of Toronto (population > 2 million), two from large cities (population > 300,000), five from medium-sized cities (population 50,000- 300,000), and three from small towns and rural areas (population < 50,000). In order to be included, both a midwife and one or more of her clients had to be willing to participate. I therefore accepted all willing midwife-client pairs, a total of 40 clients and 31 midwives.

I audio-recorded one clinic visit between each participating woman and her midwife. While video recording would have produced a richer data set, I decided against it for several reasons. First, participants moved around the examining room over the course of the visit: a videographer would be required. Most examining rooms were very small and partners, children, and midwifery students frequently attended with the midwife and woman. Few visit rooms would accommodate an extra person. Second, videorecording in such close quarters would have been obtrusive to the point of disruptiveness. Many participants noted that they had forgotten the presence of the audio recorder. This would not have been the case with video equipment. Finally, much of what took place in the visits was physically intimate (e.g. internal pelvic examinations). While all participants were happy to have an audio recorder continue to record through their entire visit, it is likely that some might have been unwilling to have their visit videorecorded or would have asked that the recording equipment turned off for portions of the visit.

The 37 pregnant clients ranged from 14 to 40 weeks gestation, and the three postpartum visits took place between 2 and 4 weeks after the birth. Midwives - all women - had between 6 months and more than 20 years of experience. Eighteen of the women were first-time mothers and 22 had given birth before. Of these, 11 had been attended by the present midwife in one or more previous pregnancies and 11 had been with other midwives in the current practice, midwives at another practice, or with physicians. Audio-recordings of visits have been transcribed. Data collection and analysis conform to ethical guidelines on research on human subjects of Social Science and Humanities Research Council of Canada (CIHR, NSERC, & SSHRC, 2003) and the study was approved by the Non-Medical Research Ethics Board at The University of Western Ontario. All participants are identified by code.

## **Data Analysis**

I went through the 40 transcripts line by line to identify traces of people, events, and situations that predated or existed outside of the current interaction. Traces may be explicit or very subtle. In many cases temporal words (modifiers like again, still, next, last, before, after; the use of past tense) signalled their presence. However, a midwife's parting request to "Say hi to the girls for me!" also embeds traces. This request displays knowledge that the woman has daughters and positions the midwife as someone who may legitimately claim sufficient familiarity to make such a request (Harré & van Langenhove, 1999). The woman neither refused the midwife's request nor challenged her knowledge claim (e.g., "I have boys, not girls"). Both speakers therefore contributed to this positioning: the woman's response is integral to understanding the midwife's request in its interactional context (Heritage, 2004).

In this chapter I analyze the traces embedded in a particular work task (Heritage, 2004): the presentation, discussion, and evaluation of clinical



findings. Clinical findings were reported in all 40 visits, and reporting them is a mandated part of woman-midwife interaction.

In conducting an analysis that attends to the multiple foci required by analytic bracketing, I have selected three analytic strategies. The first is conversation analysis (CA), particularly as it is applied to the study of institutional interaction (e.g., Heritage, 2004). The second is discourse analysis as practised in social psychology (e.g., Potter, 1996), and the third is relational analysis of the kind that forms part of institutional ethnography (e.g., Smith, 1990). I have previously used each of these analytic approaches on its own with the midwifery data set. This chapter brings the three together in ways that show the interplay among locally constitutive interactional practices and broader structural and discursive constraints.

An initial example<sup>1</sup> will serve to ground the introduction of each of the three analytic strategies. The example is a presentation of a clinical finding that occurs very frequently in midwife-woman visits, the reporting of blood pressure. This example was chosen because it is very typical of this kind of talk:

*M: Good! [velcro sound of the blood pressure cuff being removed] One-ten over seventy-four. [clattering] That's a good blood pressure. [sounds of movement.] It's been good all along with you hasn't it?*

*W: Yup.*

The description of each analytic strategy will include a brief example of the kind of analysis it can provide of this example. The findings sections will then focus on showing the possibilities of an analytics that oscillates among perspectives.

1. Conversation analysis (CA): CA is one form of ethnomethodologically-inspired analysis that focuses closely on the ways that speakers

sequentially and methodically do things together through interactional practice. CA is based on a number of fundamental theoretical assumptions (Heritage, 2004; Wooffitt, 2005). First, conversation analysts argue that social interaction itself has institutional characteristics with associated rights and obligations independent of any individual characteristics of speakers. This “interaction order” both underlies and mediates the operation of all other social institutions (Heritage, 2004, p.222). Second, CA assumes that participants manage their interaction on a turn-by-turn basis so focuses on the *sequential* organization of talk. Third, conversation analysts argue that turns of talk perform actions (Heritage & Maynard, 2006a, pp. 9-10) such as news giving (Maynard, 2003) and accomplishing institutionally-mandated informed choice (McKenzie, 2009). CA is useful for breaking an interaction down to its constituent parts and showing the incremental steps by which speakers accomplish it as a particular kind of talk (Heritage, 2004; McKenzie, 2009). Conversation analysis has been generally criticized for restricting its scope too narrowly on the mechanics of interaction, although CA studies of institutional interaction (e.g., Heritage, 2004) also reveal aspects of the broader institutional context (Holstein & Gubrium, 2005, p.488). CA, particularly in its application to institutional interaction, can answer questions such as: Within what institutionally-relevant tasks are traces subsumed? (Heritage, 2004; McKenzie, 2009). Who is framed as the information provider and who as the person to be informed? What information is each participant taken to have or not have? (Labov & Fanshel, 1977) What is made explicit among speakers and what is left unsaid? How are traces used interactionally? How do participants take up traces as constituents of the work of informing? (McKenzie, 2009). CA requires a careful analysis of what action each turn of talk accomplishes and how it relates to previous turns. Individual instances and subsections are then compared to identify patterns,

consistencies and deviations. By analyzing these patterns turn-by-turn a researcher can identify the interactional and institutional “fingerprint” of the talk and can demonstrate how each component contributes to the sequential accomplishment of the business at hand (Heritage, 2004; McKenzie, 2009). CA can, for example, identify the blood-pressure excerpt as an example of a news-delivery sequence (Maynard, 2003), where the midwife is treated as knowing and being able to evaluate the result and the woman is treated as the recipient of the good news.

2. Discourse analysis (DA) of the type used by Jonathan Potter (1996) and other social psychologists, is a method identified by Holstein and Gubrium (2005) as attending to something of both *how* and *what*. This form of analysis is concerned with the ways that accounts are constructed as credible and factual and with the rhetorical functions accounts perform within their broader interactional contexts. It is therefore useful for showing the ways speakers use traces to make and contest claims and to work up or challenge sources of evidence as credible and authoritative (McKenzie, 2003; McKenzie & Oliphant, 2006). It can answer questions such as:

What sources of evidence do speakers reference on when calling on traces? What discursive functions do traces perform? (Potter, 1996). A DA analysis requires looking closely at talk itself as artfully constructed rather than as a simple and transparent representation of some external truth or of the speaker’s mental state. Analysis proceeds through a close study of variations in the construction of talk, both within and across accounts, to identify both the discursive building blocks speakers use when producing an account and the discursive functions that account might be serving (Potter, 1996). DA of the blood pressure excerpt might focus on the kind of evidence used in working up an evaluation as “good”: the midwife calls on the woman’s previous blood pressure readings (“all along”) to invoke a series of independent observations that together suggest an objectively observable trend.

3. Relational analysis: Of the three forms of analysis used here, this one attends most directly to the *whats* of interpretive practice (Holstein & Gubrium, 2005, p. 495). Smith argues that work done in a local setting bears “the threads and shreds of the relations it is organized by and organizes” (1990, pp. 3-4). While Smith acknowledges the importance of Foucauldian discourses, she argues they do not have an overriding power; that local interaction affords “play and interplay” (Smith, 1990, p. 202; Holstein & Gubrium, p. 495). Relational analysis addresses questions such as: What kind of knowledge is required in order to make a particular statement, claim, or request (Smith, 1990) and what resources are required for the statement to be accepted as legitimate? How does a trace hook the work done here and now into work done at other times and in other places? To what times/places/people/sources does the trace hook in (Smith, 1990)? Specifically, how does local midwifery work hook into the broader biomedical and neoliberal consumerist discourses within which midwifery must negotiate its egalitarian feminist ethos (Sharpe, 2004a; Spoel, 2007; Thachuk, 2007)?

Analysis within this perspective focuses, not on how talk is constructed, but on where traces lead. Attention therefore extends beyond a consideration of the talk itself. By identifying the people, places, documents, and organizations whose work is linked to what is going on in the present moment, the analysis can show how the talk, text, and work happening here are connected, and are visible as constituents of, larger social relations (Smith, 1990, p.210). Relational analysis of the blood pressure example might focus on where standards of “good” blood pressure come from: what organizations are charged with developing, communicating, and enforcing such standards, and how such standards come to be accepted and reproduced within clinical practice (e.g., McKenzie, 2006).

Although analytic bracketing has no set procedures, it has procedural implications. Holstein and

Gubrium (2005) caution that analytic bracketing must be more than the simple application of multiple analytic strategies. Like drivers of a vehicle with a manual transmission, researchers must constantly shift between perspectives, constantly turning their attention in more than one direction. The analyst must oscillate between *how* and *what*, now being indifferent to members' practices, and now considering them in relation to their broader institutional and discursive contexts. In this case, familiarity with each of the three analytic strategies enabled me to look at each excerpt from a variety of perspectives, as demonstrated by the blood pressure example above. As is evident from that excerpt, even a small and routine bit of talk is a rich site that affords glimpses of both the constraints that the structural and discursive context place on the presentation of clinical findings and the artful ways that individual women and midwives work within and around these constraints.

The Findings section will first describe the characteristics of talk about clinical results and will show how it exhibits traces of past interactions among the present speakers as well as interactions with other agencies and care providers. Next, I will describe a function that talk about clinical results can perform: identifying and evaluating trends. Multiple forms of conflicting evidence may need to be brought together in order to achieve a resolution. Finally, I will address the ways that midwives and women respond to barriers when results or resources are inadequate or unavailable.

## FINDINGS

### Reporting Clinical Results

The reporting and interpretation of clinical results is a mandated form of talk in a clinician-client encounter, and each participant has institutionally-mandated roles. Although participants may discuss the clinician's health in their friendly talk together, the institutional mandate is almost universally

given to talk about the *client's* clinical results. Three kinds of clinical results were discussed in midwifery visits. First were the results of clinical assessments made as part of the visit itself. These included the prenatal physical examination of the woman (weight, urine tests for glucose and protein, blood pressure, fetal heart rate, abdominal palpation to assess fetal size and position) and postpartum examination of the woman and infant (e.g., infant weight, measurement, breathing and heart function; maternal blood pressure). Talk about these kinds of results therefore embedded traces of collaboration between this woman and midwife, and possibly among them and other midwives and students caring for the woman during previous visits. The second kind of results came from tests and procedures that were requisitioned or ordered (and data perhaps collected) in the course of a clinic visit, but which were analyzed by an external lab or consultant. Procedures of this kind include diagnostic ultrasound, screening for gestational diabetes, urine testing for bacteria, and blood work for disease antibodies or hemoglobin levels. Official clinical results therefore came back to the midwife in the form of formal reports to be taken up with the client at later visits, and talk references collaboration among the midwife, the external providers, and possibly the administrative staff of both (McKenzie, 2006). The third kind of results came from tests or procedures ordered by the obstetricians, family doctors, or midwives who attended women's previous pregnancies, or by the medical specialists treating women's pre-existing conditions or pregnancy-related complications. In these cases it would be the other care provider who first discussed clinical findings with the woman. Sometimes other care providers automatically forwarded reports to the midwife and at other times -- for example, when specialist care predated the current pregnancy -- they did not, and midwives wanting access to these findings needed to acquire the reports. Talk about this type of result therefore embeds all traces of collaboration evident in talk about the other two kinds of result, but here it is

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the consultant clinician, not the present midwife, who is taken to hold administrative responsibility for the results and records.

As it is the health care provider who receives consultants' reports and test results, she or he is generally taken to hold prior knowledge about the findings. In talk about clinical results, the practitioner is therefore institutionally understood to be the information provider while the client is placed in the role of person to be informed. A health care provider is likewise institutionally taken to have both the professional knowledge and the authority to diagnose and to prescribe next courses of action (Lee & Garvin, 2003; Heritage & Maynard, 2006, p.354; Elwyn, Gwyn, Edwards, & Grol, 1999). Ontario midwifery, however, espouses a woman-centered model of care which, at least in ideal form, actively and consciously rejects provider dominance. The midwifery model posits care to be egalitarian, relational and empowering (College of Midwives of Ontario, 1994; Spoel, 2007; Thachuk, 2007); women's experience and knowledge ideally determine midwifery knowledge and practice (Bourgeault 2006; MacDonald, 2006), and the woman is understood to be the primary decision-maker about her own care (College of Midwives of Ontario, 2005). This means that, in some cases, the midwifery client is institutionally understood to "own" the knowledge of her clinical results and therefore takes the role of information provider while the midwife is the person to be informed. The reporting of clinical results therefore takes one of two interactional forms, depending on who is held to have prior knowledge.

Labov and Fanshel (1977) classified talk according to the presumed prior knowledge of speakers. In a conversation where speaker A talks to hearer B,

*A-events are events to which the speaker has privileged access, and about which he [sic] cannot reasonably be contradicted, since they typically concern A's own emotions, experience, personal*

*biography.... B-events are, similarly, events about which the hearer has privileged knowledge."* (Stubbs, 1983, 118-119)

AB-events are taken to be known to both A and B (Labov and Fanshel, 1977, p.100). The discussion of clinical findings may therefore be treated as being properly A- or B-event talk, depending on who raises the issue and who is entitled to claim prior knowledge.

In presenting results arising from data collected by the midwife in the course of the visit or from external reports received by her, usual practice is for the midwife to raise the issue as an A-event topic. Midwives and the midwifery students working under their supervision consistently provided an immediate verbal report of the results of their physical examination,

*S: It's nice and low, it's ninety-four over fifty-six.*

*W: It's*

*S: So-*

*W: always been low.*

*S: Yeah. [laughs]*

*M: [paper rustles] And, did I tell you last time that [the baby's] thyroid test and her p.k.u. test came back normal?*

*W: Umm, yeah I think so.*

*M: Okay. So all that tested normal.*

In both cases, the midwife/student presented herself as knowledgeable about the procedure and result and the woman accepted this presentation.

Some kinds of clinical data are collected by the woman herself as an acknowledgement of the woman's right to active involvement in her care. As Hawkins and Knox (2003) observe, this practice highlights a fundamental difference between midwifery and medical care:

*Many women note with surprise and relief that their midwives do not stand over them as they weigh themselves.... Most clients can note the numbers on a scale and differentiate between the colours on a [urine] test strip.... Many women prefer this opportunity to test themselves, report the results and consult with the midwives if results appear unusual. (p. 93)*

In the clinics where I collected data, women generally checked weight and urine immediately upon arrival, and a urine-and-weight report was almost universally the first or second order of business in a prenatal visit. If a woman did not offer an A-event report, the midwife made a B-event query which generally elicited a report of the number in pounds or kilograms:

*M: And did you weigh yourself?*

*W: Yeah. One, forty? What was I be//fore?// Last time?*

.....//M: Good.//

*M: Last time? One thirty-three.*

*W: Oh my God. That's a lot!*

*M: Well you were pretty tiny before this pregnancy.*

*W: Yeah but. Oh well. [laughs]*

Although these three examples are routine and very ordinary, each embeds multiple traces of work done in other times and places. The "weight" example directly references the woman's work of getting on scale and reading a number, but it also embeds traces of the work of midwives negotiating a woman-centered practice model. Here, the woman "owns" her own weight, for the present at least, and is taken as the information provider. Once the midwife has recorded the datum, however, responsibility for holding it and the authority to know about it might pass to her. The woman's request for her weight from "last time" references this authority and she treats the midwife as legitimately knowledgeable about, and herself as ignorant of, her previous weight.

These routine exchanges therefore provide clues about the ways that professional responsibility, ownership of "facts," the authority to construct occurrences as facts, and the right to take on the role of information provider are negotiated in midwifery care. They also contain evidence of documentary practices. The "thyroid" excerpt's reference to results that have "come back" links to a set of practices completely external to this visit (McKenzie, 2006; Yakel, 2001) but contributing to it. The work of lab technicians is inscribed onto a report which may be transferred through further inscription to a check box or text field in the woman's chart for later retrieval by this or subsequent midwives.

Although the midwifery model seeks to disrupt a hegemonic biomedical discourse, midwifery practice is embedded within the organizational structure of the Ontario healthcare system and is subject to its licensing and regulatory practices. The Antenatal Record (Ontario Ministry of Health and Long-Term Care, 2005) is a central organizing document in Ontario pregnancy care. It was



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developed by a subcommittee of the Ontario Medical Association, who indicates that its use is “not mandatory,” (Ontario Medical Association Subcommittee, 2000). Sharpe, however, characterizes its use as “required” for midwives (2004a, p. 160). The Antenatal Record functions as a boundary object (Star & Griesemer, 1989) that both coordinates and embeds traces of the work of the midwives and possibly other practitioners providing care for each client (Davies & McKenzie, 2004). It is here that midwives inscribe measurements taken and the results of clinical tests and procedures. Midwives’ inscriptions are therefore subject to the biomedical discourses that organize Ontario healthcare: “clinical relevance” is institutionally defined in biomedical terms (Spoel, 2007). For example, although the choice of home or hospital birth is a basic tenet of midwifery care, the Antenatal Record does not include this in its list of discussion topics (Ontario Ministry of Health and Long-term Care, 2005; see also McKenzie, 2006).

## Identifying Trends

Once a clinical result has been reported, it may be taken up as a constituent of a trend. In order for a trend to be identified and evaluated, a new datum needs to be reported, as described above. The new datum must then be compared with one or more previous data, and a trend reported. The trend may then be evaluated or extrapolated into the future as a prediction. Data for the establishment of trends could be either local, related to this one woman over time:

*M: So the baby’s heart rate was one forty-six.*

*W: Okay, that’s lower than it was last time.*

*M: Yeah, so I can show you where [paper rustling] your growth has been. So today’s yeah. So I’m*

*right on that fiftieth percentile so that’s perfect. And right what we’d be [paper rustling] expecting.*

*W: Mmmkay.*

Inscriptions made at this visit are thus linked to norms and standards developed elsewhere and are themselves carried through the record into the future of the midwife-client relation (Smith, 1990).

Norms were never far away, and new observations were commonly evaluated in relation to both local trends and universal norms. In some cases, local and universal measures converged on a single evaluation:

*M: And that’s another centimetre. Compared to last week you’re right on track. You’re measuring thirty-nine centimetres for thirty-nine weeks. [movement sound] And last time you were, thirty-eight [cm] at thirty-eight [weeks]!*

*W: Yeah. [laughs]*

In other cases, local and universal assessments were not congruent, and midwife and woman were required to negotiate which should apply in this case. This negotiation involved gathering multiple forms of evidence and evaluating each with respect to the others. Midwife and woman might agree that one form of evidence won out, or they might have to negotiate their own perspectives relative to competing sources (McKenzie & Oliphant, 2010). In the “weight” example discussed above, the woman and midwife negotiated the appropriateness of a local trend in relation to universal standards:

*M: And did you weigh yourself?*

*W: Yeah. One, forty? What was I be//fore?// Last time?*

.....//M: Good.//

M: Last time? One thirty-three.

W: Oh my God. That's a lot!

M: Well you were pretty tiny before this pregnancy.

W: Yeah but. Oh well. [laughs]

The woman questioned the appropriateness of the weight gain, evaluating it in relation to some suggested but unstated standard and aligning herself in agreement, if not in physical compliance, with it. The midwife rejected the woman's evaluation and substituted her own, presenting a local trend as counterevidence. She invoked the woman's pre-pregnancy size as an AB-event, known to both. The woman did not contest this framing, and ruefully accepted the midwife's reconfigured evaluation. This excerpt therefore references the exercise of professional judgement: although a woman is recognized as the primary decision-maker, it is the midwife who has the institutional right and responsibility to make the definitive clinical evaluation.

## Overcoming Barriers

Several sources were potentially available to the midwife and woman in presenting and evaluating clinical results: documentary evidence from the Antenatal Record and other reports, physical evidence from an examination of the woman's body, verbal evidence from someone else, and lived, personal first-hand knowledge (Wilson, 1983). Occasionally one of these sources was missing or deficient, and midwives and women developed strategies for working around these deficiencies.

Three midwives in my data set were either meeting their clients for the very first time or having the first substantive visit with a newly-pregnant woman. Although these midwives had no shared history or first-hand knowledge of the woman to draw upon (Wilson, 1983), they made use of other resources at their disposal. On the surface, the next excerpt appears very similar to the other "weight gain" example -- the midwife evaluates the woman's weight gain and the woman accepts her right to do so. However, this talk embeds a rather different set of traces as it took place within the first meeting between the two:

M: So the visit **before** that you'd hardly gained any weight, at all. And this visit //you made// up for it

.....//W:  
Yeah, ((suddenly))// [both laugh]

M: You had a bit of a //growth spurt.//

.....//W: Apparently.// Yeah.

The midwife's statement about the woman's previous weight gain is therefore a B-event claim rather than an AB-event claim, but the woman contests neither the correctness of the claim nor the midwife's right to make it. This passage embeds traces of a system of official documentation including the Antenatal Record but also references the standard role of a licensed midwife. Although much literature emphasizes the importance of the ongoing caring relationship between a woman and her primary midwife (e.g., Sharpe, 2004b), the complex of clinical records and the documentary practices of licensing and practice management make it possible for a new midwife to step into a woman's care midstream and make authority claims that are indistinguishable in type from those made by the midwife in the first weight



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gain example. Here the woman accords the new midwife authority over B-events that is functionally equivalent to the first-hand authority of the midwife she has replaced. This midwife's ability to step into the breach is supported by a large amount of unseen collaborative information work, from the collective recordkeeping of midwives in the practice to the weekly meetings where each midwife may be brought up to speed on what has taken place.

In other cases, midwives and women used their own and one another's first-hand knowledge to work around record-keeping deficiencies. The Antenatal Record might not record everything, and midwives commonly "checked in" with women, temporarily assigning them the role of information provider and themselves the role of person to be informed, to confirm whether she or another midwife had discussed a result with the woman:

*M: [paper rustles] And, did I tell you last time that her thyroid test and her p.k.u test came back normal?*

*W: Umm, yeah I think so.*

*M: Okay. So all that tested normal.*

Explicit or implicit references to record-keeping deficiencies or failures are a particularly rich site for identifying and following traces. These deficiencies illustrate the flexible ways that midwives and women assigned and re-assigned the role of information provider and the corresponding authority and prior knowledge of a clinical result. In the next example, the woman had gone for an ultrasound examination to confirm the position of her baby, who was suspected to be lying in a nonstandard head-up (breech) position. Ultrasound technicians are not authorized to communicate diagnoses with clients. They refer the image to a radiologist for interpretation and the

radiologist's office sends the report to the primary care provider for discussion. However, pregnant women are generally physically positioned so that they can see the ultrasound image and they may infer some diagnoses on their own.

*M: Where's the baby Sybilla?*

*W: [indicates breech position with her hand on her abdomen] Head, bum, feet.*

*M: You know for sure? The ul, they did the ultrasound?*

*W: Yeah. Did they not send you the results?*

*M: I haven't seen the results yet. [rustling papers]*

*W: Oh really, oh I was hoping that //(we wouldn't have a) wait.//*

.....//*M: No, let's get//  
No, w, [can hear dial tone on speaker phone: M is calling to request that the report be faxed to her]*

*M: uhh [monotone blips of keying in the phone number] wasn't actually sure //that they//*

.....//*W:  
It was// very clear. But not, not engaged [in the pelvis].*

*M: But not engaged. Yeah so ((it's a breech // okay))//*

.....//W:  
Yeah.// Yes. So far.

Both the midwife and the woman knew that the woman had gone for the ultrasound, and both expected the midwife to have received the report and to explain it at this visit. The report's absence constituted a potential barrier to officially informing the woman about the state of her pregnancy. However, the two overcame this barrier by switching roles: by asking the woman about the baby's position, the midwife presented herself as ignorant and the woman as knowledgeable on this question and relinquished the role of information provider, which the client took up. Even as she called to request the official report, the midwife accepted the woman's report as authoritative, and the two went on to discuss options before the fax arrived. This excerpt illustrates the midwife's parallel strategies of going through prescribed channels to get the official report while supplementing with an unofficial but adequate-for-the-moment report from the woman. The collaborative efforts of the midwife, client, ultrasound technician, radiologist, and administrative staff (as well as the ultrasound system itself and the various regulations and protocols associated with its use) were all therefore required in order to accomplish an evaluation of the baby's position.

Another conscious departure from a paternalistic biomedical model is midwifery's practice of giving the woman physical custody of her original Antenatal Record (McKenzie, 2006) as her due date approaches. With this physical transfer comes a symbolic transfer of formal authority over the record. In the final example, a midwife, woman and a midwifery student had been discussing the woman's previous birth, a caesarian section attended by midwives and doctors in another city:

*M: Okay, so what we like to do is we would like to request thee um, the C-section [report] from the hospital so I have a chance to sort of review that.*

*W: Okay. [...] Um, is that anything I would have? Cause I still have all my paperwork and everything from, from her birth.*

*S: From the clinic, //the midwifery// clinic at, at*

.....//W: Yeah//

*S: Yeah.*

*W: Midwifery clinic and from [hospital in other city]*

*S: She might, //you might// have it, yeah.*

.....//M: Okay.//

*M: Yeah. //Can you look it up? It, it would say// "operative report."*

.....//W: I'll look, I'll look through my file and see ((if there's anything)).//

*W: Okay [...]*

*M: [to student] Just make a note that we have requested a, [paper rustling] copy of the um, operative report from her. So then we have to follow that up. [to woman] If we don't have it then, we have to ask you to sign an authorization and we'll fax it down to the hospital //and then// we have to request [a copy of the report from the hospital].....//W: Sure//*

While the woman in the ultrasound example temporarily became the best-source-for-now until the official report could be obtained, the woman in the C-section example became the primary source of official documentation about her previous birth. The midwife would only go to the prescribed source if this strategy were unsuccessful.

Although the midwife is most often positioned as the information provider in reporting clinical findings, there are many official and unofficial exceptions. By flexibly assigning this role, woman and midwife can overcome barriers that might otherwise prove insurmountable. These work-arounds may temporarily upset the established way of doing things and pose small challenges to the dominant discourse.

## **FUTURE RESEARCH DIRECTIONS**

Analytic bracketing offers LIS researchers a new way to analyze and understand collaboration. This strategy has identified some of the interactional *hows* of collaboration as well as providing insight into the more deeply embedded discursive *whats* that underlie the institutionally mandated work of informing. As a new analytic strategy for LIS researchers, it offers much promise for identifying the traces of collaborative work embedded in naturally-occurring talk in institutional settings.

While conversation analysis, discourse analysis, and relational analysis each offer a single view of the dynamics of reporting clinical findings, Holstein and Gubrium's (2005) notion of analytic bracketing offers a means of playing off one form of analysis against another. Holstein and Gubrium caution against a simple analytic integration and argue instead for an "oscillating indifference to the realities of everyday life" that highlights the *interplay* of institutional discourse and local artfulness (2005, p. 495). Holstein and Gubrium propose that an oscillating focus on *what* and *how* can begin to address some of the *whys* of social life. Discursive practice "provides the footing for answering why recognizable constel-

lations of social order take on locally distinctive shapes" (2005, p. 498). This chapter has taken some initial steps in this direction, considering what combinations of physical, verbal, documentary, and first-hand evidence are brought into play in making claims and identifying and evaluating trends; what is the origin of universal data against which individual cases are to be evaluated; who is understood to hold what knowledge and what authority to provide what evidence; who exercises what rights to make claims, diagnoses, evaluations, predictions, and recommendations, to identify trends or to interpret evidence; what resources are available and to whom; what conflicts and barriers arise and how are these negotiated and resolved; what work-arounds are developed and what are the consequences of these; how and under what circumstances rights, knowledge, and authority claims are made, contested and negotiated; how people knowingly and unknowingly collaborate with their past and future selves and with others in other places and at other times; what traces of these collaborations are embedded in their current interaction.

Future use of analytic bracketing can expand on this analysis by unpacking other kinds of institutional practice with informing as a mandate. In addition, analytic bracketing is well-suited to the analysis of other forms of collaborative endeavour, including: how both discussion topics and "information needs" are interactionally negotiated as legitimate; how "informing" as an institutionally mandated form of interaction is enacted in practice; how dominant and alternative discourses are invoked in the provision of evidence and the making of claims; what the analysis of traces shows about the history of a relation and its development over time.

## **CONCLUSION**

The analysis in this chapter demonstrates that even the most routine interactions embed traces of collaborative work, some done here and now and

some done at other times and/or in other places. Indeed, Smith (1990) argues that any institutional interaction embeds traces of extralocal work. Identifying and analyzing how such traces are produced can provide insight into the interactional *hows*, and following traces leads to the discursive *whats* of institutionally mandated informing. This chapter has shown that naturally-occurring talk in institutional settings is a rich site, and that analytic bracketing is a flexible methodological approach, through which to reveal collaboration as a complex and multifaceted set of practices that go well beyond the visible contributions of others present and absent.

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## APPENDIX: TRANSCRIPTION STANDARDS (KEY)

M:	Conversational turns are prefaced by an initial identifying the speaker ( <b>M</b> idwife, <b>W</b> oman, <b>S</b> tudent), and a colon.
//	Marks overlapping talk.
(( ))	Inaudible.
[ ]	Nonverbal elements such as laughter, physical gestures, changes in tone, or to indicate the removal or identifying details or the editing of the excerpt for this article.
...	Indicates the approximate length of a pause in seconds.
? !	Punctuation indicates both grammatical sentence-ends and emphatic or interrogative intonation, syntax, or intent.