“Scissors, Please”: The Practical Accomplishment of Surgical Work in the Operating Theater

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The focus of this article is on professional activity in the operating theater. We explore how surgeons and nurses organize their activities, how social interaction is used to help structure and define situations, and how differentials in knowledge are constructed and oriented to. We utilize some ideas and concepts from symbolic interactionism, ethnomethodology, and conversation analysis to analyze small clips of audio- and video-recorded interaction. Focusing on how surgeons and nurses request, provide, and apply surgical instruments, the analysis shows how surgical work is accomplished through talk and bodily conduct. We conclude that, examined in detail, the social interaction between surgeons and nurses is analytically inseparable from the “technical” demands of their work.

Keywords: surgical work, verbal and nonverbal communication, social interaction, interaction analysis

In this article we explore the practical accomplishment of surgical work utilizing concepts and ideas from symbolic interactionism, ethnomethodology, and conversation analysis.

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analysis. We recognize some of the epistemological differences between symbolic interactionism, on the one hand, and ethnomethodology and conversational analysis, on the other. However, in bringing these approaches to our analysis, we have focused on lines of common interest, particularly in their respective investigative dispositions toward analyzing particular contexts and situations. We aim to outline some broad areas of intersection relating to talk, bodily conduct, and social interaction, in an endeavor to find out more about how health care practitioners “produce and manage settings of organized everyday affairs” (Garfinkel 1967:1).

Our focus is on operating theaters in the UK. As sites of interprofessional, ephemeral, and embodied interaction they are analytically rich contexts for investigating the practical accomplishment of professional activity. In the operating theater, different “tribes”—surgeons, nurses, anesthetists—work together in teams that are newly formed for every operation. As a result, staff members often work with colleagues, including trainees, whom they have never met before. Contingencies like this can disrupt the level of synchronicity required for coordinated surgical work. Our focus is on how participants manage such contingency to minimize disruption to the practical tasks they are involved in.

We draw on ethnographic fieldwork in a major teaching hospital in London, where we observed and recorded interactions at the operating table. The analysis is focused on three episodes. The first episode shows how particular bodily movements are invoked to signal relevant participation status in coordinating collaborative work. The analysis of the second episode demonstrates some of the conversational practices participants use to render transparent the mutual orientations involved in coordinating activities. In the first episode, talk is minimal and the coordination between the scrub nurse, the senior house officer, and the consultant surgeon (“consultant”) is achieved through gaze, bodily comportment, and the background expectancies team members use to make sense of what is going on. In the second episode, coordination between the scrub nurse, the specialist registrar (“registrar”), and the consultant is momentarily disrupted and requires repair work through talk, altering the registrar’s subsequent positioning of the scrub nurse vis-à-vis his own background expectancies made explicit in the third episode.

The article is structured as follows. We begin by highlighting some of the influential interactionist, ethnomethodological, and conversation analytic ethnographies of medical settings, which provide an important framework for our own study. We then describe our own fieldwork and the analytic procedures that we applied. Following this, we present and analyze the three focal episodes. In the concluding section we discuss our findings in the light of some previous work on communication in the operating theater.

INTERACTION IN MEDICAL SETTINGS

Medical settings have been popular sites of research for symbolic interactionists, ethnomethodologists, and conversation analysts. It was Hughes (1971) who advanced the concepts and ideas of symbolic interactionism toward the sociological study of
work, frequently using the exemplar of the social organization of medical work. In doing so he displayed a clear alignment with Blumer’s (1969) recommendation that learning about the complexities of social life requires detailed studies of particular situations. Hughes’s essays on the division of labor and role identities in medicine provided the impetus for several influential ethnographic studies of medical practice, establishing a strong fieldwork tradition informed by the principles of symbolic interactionism. Davis (1963) demonstrates how doctors during the outbreak of polio extended the pretense of clinical uncertainty beyond the early diagnostic phase as a way to manage the contingencies of the interactions with parents. Strauss and colleagues’ concept of “negotiated order” (1963) emerges from Strauss’s investigation of the organization of care in psychiatric hospitals. Strauss observes how different groups, such as clinicians, social workers, and patients, in their interactions with each other would negotiate their positioning regarding organizational matters.

Goffman’s work has provided a useful theoretical resource for studies of medical work. Goffman (1983) is frequently credited with drawing sociologists’ attention to what he called the “interaction order.” For Goffman, interaction, just like any other social institution, could be investigated as a legitimate and relevant sociological topic of inquiry. Goffman’s work consists of a vast array of analytic descriptions of how members of society organize their interactions with one another in public and institutional spheres. Strong’s study (1979) of pediatric clinics exemplified some of Goffman’s conceptual ideas, demonstrating that although doctors and patients sought to modify the frame of the consultation to their own advantage, doctors idealized mothers, while mothers idealized the professional competence and expertise of the doctor.

Not unlike Goffman, Garfinkel (1967) is at pains to shift the attention of sociological investigation toward analyzing “naturally” occurring phenomena and identifying the commonsense, background, or common understandings that members of society utilize in their everyday encounters to make sense of the situations they find themselves in. Around the same time that Garfinkel’s *Studies in Ethnomethodology* was published, Sudnow (1967) produced an ethnographic study of death and dying in the hospital setting. Sudnow introduces ethnomethodological concerns to investigate the routinized organizational aspects of medical work and how the staff attended to death and dying in hospital settings.

The development of conversation analysis (CA) by Sacks and his colleagues (1974) introduces a different analytic angle for analyzing social practice, involving the close examination and description of talk-in-interaction as a way to discover the mundane, routine, common understandings that shape social interaction. In the main, CA studies of medical settings have concentrated on doctor-patient interaction, with the majority dealing with the verbal aspects of interaction (ten Have 1995). However, some have also brought CA concerns to other facets of interaction such as gaze and gesture and their relation to talk. For example, in one of his studies of nonverbal interaction in the doctor-patient encounter, Frankel (1983) argues that nonverbal aspects of communication such as gaze will vary between different
social contexts. Thus the meaning of nonvocal interaction (e.g., gaze) is contingent on background understandings that furnish “both a texture and rules for deciding the appropriateness of an action in any given situation” (p. 45). This can have implications for the structure and sequencing of doctor-patient talk. Similarly, Heath’s (1986) study of talk and body movement in doctor-patient interaction examines how doctors and patients determine things like participation rights and obligations, and engagement and disengagement through verbal utterance working in concert with gaze and bodily gesture. Heath makes a distinction between “displays of availability” and “displays of recipiency.” A display of availability, he argues, creates an environment of “undifferentiated opportunity” (p. 33) in which action can be initiated. By contrast, a display of recipiency specifies an interest in the receipt of a response and displays “location for the receipt of its occurrence” (p. 33).

The number of studies that introduce broader interactionist, ethnomethodological, and CA concerns to the analysis of interaction in medical settings is growing. As Mellinger (1994) notes, in studying work practices, what is required is a detailed investigation of the emergent and contingent properties of social interaction. Some of these studies have been conducted in the anesthetic room and the operating theater. For instance, Hindmarsh and Pilnick (2002, 2007) show how anesthetists and their assistants collaborate through bodily conduct while engaging in talk with patients as the latter are being prepared to be put to sleep. Mondada (2003) discusses an episode involving a surgeon interacting with his assistants and various remote audiences who could watch the operation on a screen showing the view of the laparoscopic camera that the surgeon holds inside a patient’s body cavity. Koschmann and colleagues (2011) show how talk is used to do instructional and instrumental work and how anatomical objects are coconstructed by a faculty member, a surgical trainee, and a medical student. Svensson and colleagues (2009) examine how complex phenomena are made accessible and intelligible to trainees through demonstration and instruction in surgical activity. Elsewhere they show how a seemingly simple passing of instruments is accomplished by a fine micro-coordination of the activities of the passer and the recipient (Svensson et al. 2007).

These studies and analytic orientations provide some “sensitizing concepts,” which suggest to us possible “directions along which to look” (Blumer 1969:148) at the practical accomplishment of activities in the operating theater. First, the rigidity of hierarchy and knowledge asymmetries in medical settings are revealed as fluid and not static, for example, when a doctor is talking to a patient or a surgeon is talking to a trainee. Second, participants in medical settings orient to a sense of entitlement to knowledge, participation rights, and obligations, competency, professional identity, and status. Third, they show that social interaction is embodied and that orientation to the actions of others requires an ability to “read” the bodies of others:

The sights, sounds and feel of colleagues are used to sense, anticipate, appreciate and respond to emerging tasks and activities. Furthermore, the import of the body is not stable, but ongoingly and contingently treated with intimate regard to moment-to-moment changes in interactional and embodied contexts. So in contrast to
many studies of coordination, even those concerned with improvisation, our study reveals how the teams featured in our data are intimately sensitive to delicate and subtle shifts in the embodied conduct of colleagues. This sensitivity, what we term intercorporeal knowing, underpins the team’s abilities to seamlessly coordinate emerging activities. (Hindmarsh and Pilnick 2007:1413)

In short, our research is shaped by an interest in how talk and bodily conduct relates to particular teamwork activities, how surgical team members in their interaction with one another structure and define situations, how differentials in knowledge and competence are constructed and oriented to by participants in the setting, and how surgical work is socially organized.

METHODS AND DATA

We conducted our fieldwork in a major teaching hospital in London between 2009 and 2010. We observed forty operations, involving five consultant surgeons, five specialist registrars, five (senior) house officers, ten medical students, twenty-five nurses and operation department practitioners, and five anesthetists. The operations cover different general surgical procedures, lasting between forty-five minutes and six hours, totaling approximately seventy hours. The overall time spent observing in theaters exceeds that, covering not only the actual operations but also the preparations and cleaning up in the operating theater and its adjacent rooms: the prep room, where nurses sort the instruments, and the anesthetic room, where the anesthetist puts the patient to sleep. Many hours were spent between theater cases talking to staff and students. Staff members were also observed in coffee rooms and in departmental meetings.

We have collected audio and video recordings of ten cases, using a wireless microphone worn by one of the surgeons, as well as the built-in microphones on video cameras. Instead of using wide-angle video cameras to capture what happens around the operating table, we used a camera fitted to a light, allowing us to capture the features that the participants in the interaction typically orient to, that is, their hands and those of their colleagues, their instruments, and the parts of the patient’s body that they operated on. In addition to these recordings we took photographs and kept detailed field notes of all the operations that we observed, particularly noting changes in the spatial configuration of participants around the operating table.

The analysis proceeded through a sequence of steps. Field notes were selected in which observations were reported on interaction between surgical team members. Through iterative viewing of the audio and video, data clips that exemplified emerging themes were selected for close analysis. Data sessions provided opportunities to examine video clips with a multidisciplinary research team, to develop preliminary analyses, and to identify phenomena worthy of more detailed analysis (Heath, Hindmarsh, and Luff 2010).

We proceeded to describe “key incidents” (Erickson 1977:61) and to place them “in some relations to the wider social context, using the key incident as a concrete
instance of the workings of abstract principles of social organization.” The “key incidents” that we examine in this article are based on a detailed analysis of an audio clip capturing what was said by nurses and surgeons during an operation; a video clip of their hand movements and handling of instruments; field notes and photographs of what happened around the operating table; documents circulating in the operating theater, such as forms and reports; and conversations with the surgeons and nurses involved. All staff in theater and all patients involved have given informed consent to collect these data. Ethical approval was granted by the National Health Service Research Ethics Committee.

INTERACTION IN THE OPERATING THEATER

The collaborative work of surgeons can often be achieved only through complex, “intimate” bodily arrangements, running contra to conventional social expectations in relation to interpersonal distance, bodily comportment, and gaze in human interaction (Hall 1969). Talk in the operating theater is often minimalist. In some cases the procedures can be conducted with very few words spoken, particularly at the “tricky” moments during the procedure. However, (verbally articulated) requests from a surgeon to a scrub nurse are very much a routine aspect of any operation. The requests may come from a consultant, or by one of his assistants, such as a registrar or a senior house officer (SHO). Requests usually take the form of imperatives and seldom explicitly identify a specific addressee (“Green lights off, please”). The few exceptions we recorded (“Have you got some local anesthetics, Miranda?”) typically happened at the beginning or end of the operation, when a marked change in the definition of the situation is evident in how participants orient to topics of conversation, participant status, turn taking, and so forth. Requests display a general feature of talk-in-interaction in that they are designed for particular recipients. Although requests rarely identify a particular recipient, the recipient’s identity is often implicit in the type of request. For instance, requests that imply touching nonsterile material cannot be addressed to anyone who is scrubbed. Requests for instruments will be directed at the scrub nurse, insofar as the requested instrument is on her instrument trolley. However, proximity comes into play here. If the same instrument has been requested before and is still near the registrar or SHO the request is, by implication (also) addressed at them.

The episodes we discuss below provide more insights into these interactional patterns around requests for instruments. The episodes are taken from a recording of an anterior resection, a major operation whereby the upper part of the rectum is removed. During this operation the consultant stands on the left side of the operating table, the registrar on the right side, and the SHO stands at the leg-end. The scrub nurse stands between consultant and instrument trolley (see Fig. 1). The first episode starts soon after they have opened the abdominal cavity, about one hour into the operation (the first hour of the operation proceeded through so-called key holes). The second episode starts a further forty-five minutes into the operation, and a third
episode a couple of minutes after that. In all three episodes, requests are made to the scrub nurse for scissors. In the first episode it is the SHO who makes the request, in the second episode it is the consultant, and in the third episode the registrar. The requests in the first and third episodes are made in the context of suturing, which requires a particular type of scissors (“stitch” or “suture” scissors). The request in the second episode is made in the context of stitching up the artery, which requires a different type of scissors (“artery” or “surgical” scissors).

Episode 1

In episode 1 (represented here as Fig. 2), several activities unfold at the same time, involving different sets of participants. The consultant is tying knots, which is facilitated by the registrar, who provides the necessary traction by holding a retractor in place. The consultant and the registrar are talking about the management of beds. The SHO is within earshot of this conversation but is not a “ratified participant” (Goffman 1981) in it. Meanwhile, the SHO makes a request for and receives scissors from the scrub nurse, preparing herself for cutting the suture on the consultant’s completion of the knot tying. Our analysis of the episode is aimed at exploring how the participants coordinate these activities through their bodily conduct and talk. The focus is on the SHO and her “juggling” between the request for and the receipt of the scissors and the knot tying. The analysis is informed by Goffman’s (1971)
FIGURE 2. Episode 1: “Scissors, Please”
notion of “body gloss.” This is the idea that people can provide a nonverbal “gloss on [their] situation” (p. 125) to “broadcast” their interactional positioning, in particular, when they are not in a position to account for that positioning through talk.

The transcription of episode 1 is based on a fifteen-second video clip and is informed by Heath and colleagues’ (2010) transcription techniques. It details the actions of the consultant and the SHO on horizontal time lines. The conversation between the consultant and the registrar is not transcribed. Time is counted as mm:ss:ff, with “f” standing for frame. One second consists of thirty frames. One unit on the time line equals three frames. The consultant’s actions are broadly described in terms of “tying knots” and “holding thread tight.” The SHO’s actions are represented in detail, in terms of her positioning and movement of upper body/trunk, hand/arm, head/gaze, and speech. A dotted line indicates movement, and a continuous line indicates that the position is fixed. Discontinuations of lines indicate “invisibility” on the video record, for instance, when the SHO’s head temporarily blocks the view of the consultant’s hand movements. The directions of the movements are described. Speech is used at only one point in this episode and was transcribed using conventional orthography. The time lapse of speech is detailed as a dotted line. The transcript includes five video stills at some key moments in the clip, depicting the relative bodily positions of the SHO and the consultant.

The SHO stands between the patient’s legs, which are bent and which rest on frames (see Fig. 1). The scrub nurse and the consultant are on her left, and the registrar is on her right. The SHO has little room to maneuver, yet she can and does move her upper body sideways and upward and downward to get the view and make the hand movements that she needs. Moving her trunk downward and upward allows her to respectively get physically closer to and to move away from the operative field. Moving slightly to the left allows her to get physically closer to the scrub nurse. Thus the movements of her upper body are suggestive of her orientation toward the various actions of others unfolding around her. Tilting toward the operative field suggests an increased engagement with the consultant’s manual actions. Erecting her upper body and bending slightly to the left but without actually pivoting her trunk suggests a decreased engagement with the consultant’s manual actions, but without a complete withdrawal, while suggesting the onset of a temporary engagement with the scrub nurse. Thus she can display her engagement with the actions of two people who at that point are themselves not oriented toward each other.

The SHO begins to tilt toward the operative field as the consultant begins to tie knots. At 9:46:00 she begins to move back up and tilts slightly to the left, suggesting engagement with the scrub nurse, without entirely withdrawing from the consultant’s manual actions. Three seconds later she moves back to the middle of the space between the patient’s legs, where her trunk remains in a more or less stable position for just over a second. Thus she has disengaged with the actions of the scrub nurse and displays an increased orientation to the operative field. She then turns slightly to the left again, stays in that position for half a second and then moves farther upward for a second and a half. In this way she displays engagement with the scrub nurse
again while sustaining the consultant’s actions. She maintains that position for just over one and a half seconds and then begins to tilt toward the operative field again, until 9:57:21. She has disengaged with the scrub nurse again and is now displaying orientation to the operative field only. She maintains that position for the rest of the clip. So in this fifteen-second clip the SHO engages momentarily with the scrub nurse twice, without ever completely moving away from the operative field and the consultant’s manual actions.

The SHO’s left arm is invisible in the clip, but it looks like she is resting that arm on the patient. Her right arm and hand play a crucial function in her coordination. At the start of the clip, when the consultant is tying knots, her right hand is still resting on the patient. At 9:46:15 she moves her hand up, only to let it rest again. Moments later she moves her hand up again while stretching her arm and moving it to the left. This happens as she is moving her upper body up and tilts slightly to the left. This accentuates her engagement with the scrub nurse. Her right hand is now in front of her trunk, and while she soon starts shifting away from the scrub nurse, again she maintains that position of arm and hand until she has received the scissors from the scrub nurse at 9:53:08. That way she continues to display orientation to the scrub nurse, signaling to the scrub nurse that she is available for receiving the scissors she requested while moving closer to the operative field again. The scrub nurse is likely to have anticipated the request. Only moments ago she has passed a stitch to the consultant, and she is well aware that the attached thread will have to be cut when he has completed the knot tying.

When the SHO has received the scissors she moves her arm back to the right, accentuating her withdrawal from the scrub nurse’s actions. As she moves her arm closer to her trunk she twists and grasps the scissors, moving her fingers into its rings (see Fig. 2, Picture 3). From 9:55:03 she holds the scissors in a fairly fixed position, apparently ready to apply them (see Fig. 2, Picture 4). At 9:56:18 the consultant stops moving his hands and fingers, holding the thread in a fixed position using both hands, in such a way that it can be cut (only) by someone else (see Fig. 2, Picture 5). His hand positioning "broadcasts" to the SHO the request that the thread needs to be cut. The SHO then moves closer to the thread, and at 9:57:21, just over a second after the consultant started holding the thread fixed and tight between his fingers, she cuts it (see Fig. 2, Picture 5). She then moves her arm and hand back to her trunk while rotating the scissors on her fingers and grasping it such that it points upward.

The SHO’s shifting head position and gaze direction is a further indication of her orientation toward the actions of others around her. Moving her trunk without also moving her head allows her to display dual orientation toward the operative field and the scrub nurse, and to gradually engage more with the one and less with the other. When she first turns her head to the left, at 9:47:12, she has already begun to move her trunk up and to tilt it slightly to the left; she also has already begun to move her arm and hand toward the scrub nurse. Thus the turn of her head, which allows her to direct her gaze to the scrub nurse, is the third indicator of her increased engagement with the scrub nurse, alerting her to an upcoming request. Then, at
9:48:00, she verbalizes the request: “scissors please” (see Fig. 2, Picture 2). Now that the request has been completed, she turns her head back to the right, allowing her to look into the operative field again. She knows that soon the scrub nurse will offer her the scissors, and she still holds her open hand within the scrub nurse’s reach. At 9:51:00 she turns her head to the scrub nurse again. The positioning of her head and direction of her gaze is not visible on the video record until she receives the scissors just over two seconds later and turns her head back to the operative field.

This analysis not only shows how the SHO manages to help sustain and complete one activity (knot tying) through the timely initiation and completion of another (instrument exchange) but also manages to simultaneously engage in those two activities. The bodily movements of the SHO do not “just” allow her to “cut” a thread; they also display a body gloss and are designed to signal, first, to the scrub nurse that she is about to ask her to pass some instrument and, second, to the consultant, that she is ready to apply the scissors whenever he is ready. She can see that the consultant is tying knots, she knows that soon the thread will need to be cut, and she knows that the consultant will be expecting her to do that. She has to calculate the time it will take her to request and receive the scissors, and she has to consider the availability of the scrub nurse for receiving the request, as she may be occupied by, for instance, talking to one of the circulating nurses.

Indeed, the first time the SHO moves her hand up and down—moments that occur before she actually stretches her arm out to the left—can be seen as a “false start,” the beginning of what could have become a “full” movement toward the scrub nurse, but which she did not complete as she noticed that the scrub nurse was unavailable to receive her gaze. Goodwin (1981:57) described gaze patterns in informal dyads, proposing that “a speaker should obtain the gaze of his recipient during the course of a turn at talk.” He suggests that interactants demonstrate a preference for securing the recipient’s gaze, as against not securing it where speech exchange may occur at key moments in the interaction. This might explain the false start and the timing of the eventual verbalization of the request. However, on other occasions, we have seen requests being verbally articulated in the absence of eye contact, for instance, when surgeons are oriented to the operative field and cannot “afford” to even momentarily shift their orientation to the recipient of the request. Our analysis of episode 1 shows that requests were also made without any eye contact or indeed any verbal cues (e.g., the consultant’s request to cut), but when verbal cues were involved (e.g., the SHO’s request for scissors) they were part of a sequence of nonverbal actions.

The “juggling” between two activities displayed in episode 1 by the SHO is described by Kendon (1990) as the “f-formation.” Looking at “informal” gatherings, he shows how participants standing in a social circle with two others can temporarily turn their head away from the center point of this “f-formation” while sustaining their involvement in the talk. They keep their lower body in line with the center of the f-formation to express engagement with the talk and use the upper body to engage, temporarily, with someone situated outside the formation.
Episode 2

The analysis of episode 1 rendered visible a sequence of actions in which requests were followed by the actions they were designed to elicit. First, the SHO made a request for scissors, and the scrub nurse provided the scissors she was looking to receive. Second, the consultant made a request to cut a thread, and the SHO applied the scissors. In episode 2 the consultant makes a request for scissors, but he does not receive the scissors until after “repair work” has been done. Our analysis of this episode is aimed at how repair work gets done and how it shapes the participants’ understanding of one another.

Episode 2: “Scissors, please” (CS: consultant surgeon; SN: scrub nurse)

1. CS Scissors please (slightly raised tone)
2. SN (3.0)(   )
3. CS No I’m gonna cut in the artery. Long (.) the surgical dissecting scissors

At line 1 in episode 2 the consultant exhibits an orientation toward what conversation analysts call recipient-design. This relates specifically to the question of speaker participation. First, this principle refers to how a speaker’s utterance is designed according to the particularities of the intended recipient. In the surgical context, requests for instruments are usually, though not always, designed for the scrub nurse. Note that in the example, the request for scissors is made with a slightly raised intonation, giving some indication that the utterance is directed outside the immediate tight huddle of the consultant surgeon, the registrar, and the SHO, therefore signaling relevant-recipiency status. Second, utterances designed for particular recipients also presuppose attributes of the recipient such as knowledge of the context and “professional competence.” In the first utterance in line 1 the request made by the consultant presupposes that the scrub nurse will know which type of scissors is required. However, at line 2 there is a three-second pause before the scrub nurse replies (inaudible). At line 3 the consultant then introduces a remedial effort and repeats the request but in doing so prefixes that request with a description of the action he is about to perform and then specifies the type of scissors he requires.

One way in which a recipient can display confirmation that a request has been heard and understood is simply by repeating the request. Note, however, that in the example at line 2 the fact that a possible trouble has arisen is to some degree evidenced by the three-second silence before the scrub nurse replies. The appropriate response to the consultant’s request is thus rendered absent. This silence can be seen to signal a repair subsequently followed by a repair insertion (in this case inaudible) to clarify the request. At line 3 the consultant’s response immediately targets the need for repair, specifies and contextualizes his request, and realigns with the actual, rather than presupposed, knowledge status of the scrub nurse. So a new “here and...
now definition of the situation” (Goodwin and Heritage 1990:287) is rendered visible for all participants.

**Episode 3**

In episode 3, which occurred minutes after episode 2, we see that talk is now directed to the new “here and now definition of the situation” and that the request has an added instructional element. Consequently, the registrar orients to “the problem that the communication of instructions attempts to solve: namely the troubles inherent in turning an instruction into an action” (Suchman 1987:104).

**Episode 3—“Stitch scissors, please” (Reg: registrar)**

1. Reg Stitch scissors please in my right hand

At line 1 the registrar makes a request for scissors. This time, however, the request is preaced with a description of the type of scissors required. By providing the specification with the request, the registrar targets back to the previous exchange where the “scissors” request by the consultant led to repair work. The registrar’s request also includes an instruction as to where the scissors are to be placed. This is also indicated by the registrar holding his hand out facing away from the huddle toward the scrub nurse. This time the scissors are received as requested. Thus the repair work in episode 2 has led to a change in “footing,” that is, a change in the “frame for events” (Goffman 1981:128), which is expressed in how the registrar manages the formulation of his request for scissors in episode 3 (“Stitch scissors, please”) differently to the consultant’s formulation of scissors in episode 2 (“Scissors, please”).

**INTERACTION IN CONTEXT**

Some questions have remained unanswered in our analysis so far. To start with, in the last episode, what understanding did the registrar have of the scrub nurse, leading him to ask for stitch scissors instead of scissors? Indeed, when the SHO formulated her request in episode 1 she needed stitch scissors as well, but she simply asked for scissors. The consultant in episode 2 wanted a different type of scissors, but initially also simply asked for scissors. So the requests for scissors in both episodes 1 and 2 were ambiguous in that they did not specify what type of scissors was needed, yet only the request in episode 2 is followed by a request for clarification. There are a large number of different instruments, and a broad range of different names are used by surgeons and nurses to refer to them. The meaning of any of the names used can be understood only in the context in which they appear. There are many different types of scissors, for instance, so that when surgeons ask for a pair, nurses will need to disambiguate the request. Crucially, to understand verbal instructions they need to place the instructions (1) in the sequence of actions of which they are a part,
and (2) in its “visual context,” that is, they need to be able to see what the surgeon does as the request is being formulated (Bezemer et al. in press).

In episode 1, the request from the SHO comes after the scrub nurse has provided a mounted stitch. As such, she should know that the consultant will soon be tying knots, and she can anticipate that the suture will need to be cut on completion of the knot tying. She will also be aware of the typical division of labor within the surgical team, giving responsibility for the cutting of sutures to the SHO. Seen in this context, the scrub could easily disambiguate the SHO’s request for scissors. In episode 2, the request from the consultant does not come after the scrub nurse has provided any information in relation to what is he is requesting. Unlike the consultant, the registrar, and the SHO, she does not have a close view of the operative field, so that she cannot see what the consultant is up to (see Fig. 1). In this context, she expresses difficulty disambiguating the surgeon’s request. In episode 3, the request from the registrar comes after the scrub nurse has provided a mounted tie. Therefore she could anticipate that scissors were needed to cut the tie, and she may well have been able to disambiguate a simple request for scissors.

Placing the various requests for scissors in their respective contexts draws our attention to one of the interactional challenges faced by those working at the operating table. The formulation of requests is shaped by background understandings, and in this respect they are “context sensitive” but also “context renewing” (Heritage 1984). For instance, the surgeons may have formulated their requests on the working assumption that the scrub nurse was “competent,” that is, possessed the “knowledge” and “skills” required to make sense of their requests for scissors until the point that she requested clarification. It may also be that the registrar specified the type of scissors he wanted in episode 3 not because of a change in his understanding of the overall competence of the scrub nurse but because the consultant’s earlier request for a slightly less common type of scissors provided a potentially ambiguous backdrop for the request he was going to make now.

The contextual view on requests also sheds a different light on the question of accountability. The episodes show that all participants work toward ensuring that requests are responded to appropriately: the scrub nurse requests clarification, and the registrar details the type of scissors he wants. However, this orientation also sets up a framework of evaluation: when requests are not followed by a provision of what is required, the sequence of actions is interrupted. These interruptions are treated as “disruptions” that could and should not have occurred and raise questions about why it happened, who is responsible, and what can be done to prevent it from happening again (Bezemer et al. in press). In other words, our analysis of the interaction has highlighted aspects of the coordination of complex work in the operating theater and how the participants themselves orient to avoiding “disruptions.” We come back to this in our concluding section.

As mentioned above, the operative field provides important cues to scrub nurses for disambiguating requests, yet their access to this visual field is limited. Interestingly, access to the operative field could be widened fairly easily. For the purposes of
our research, we video record the operative field using the built-in camera in the light handle. This view can be projected onto any and all of the many screens with which this operating theater is equipped, allowing scrub nurses and everyone else physically copresent in the theater to gain a better understanding of what the surgeons are up to and providing a richer context for disambiguating requests. That is, the projection would render visible for more participants the “here and now definition of the situation” (Goodwin and Heritage 1990:287). This is already happening with keyhole surgery, when the view of the laparoscope is projected onto these screens. However, at our research site the light-handle camera is not used for these purposes.

CONCLUSION AND DISCUSSION

In recent decades, communication has begun to feature as a key concept in the medical world. Clinical work is no longer exclusively defined in terms of technical skills but also in terms of nontechnical skills. This dichotomy is indicative of the contemporary medical perspective on communication as something that is part of a rather disparate set of “issues” (i.e., nontechnical skills) that are separable from the “craft” of medicine yet in need of attention, investigation, and training, as they are likely to affect patient safety and the quality and efficiency of health care. As they mainly publish quantitative research, few observational studies have been published in medical journals. Exceptions include Lingard and colleagues (2004), who have identified and examined different types of “communication failures” and their effects on the efficiency of the surgical team. Shabnam and colleagues (2006) argue that verbal communication in the operating theater, or the lack of it, can have direct effects on the clinical outcomes, echoing Vincent and Wears’s (2002:410) point that high-risk environments require “continuous communication and rapid updating of information.” Sevdalis, Healey, and Vincent (2007) examine how “case irrelevant communications” can potentially distract surgical team members from the effective performance of key tasks. These studies tend to focus on “talk,” and they document predefined, recurring features of talk in many different situations.

Our approach has sought to describe and analyze the particularities of social interaction in a small number of situations, showing how the work in the operating theater is socially achieved. We have tried to capture conduct “in the moment” rather than after the event. Our interest was not so much in categorizing communication failure or case irrelevant communications but in describing and analyzing the resources participants themselves use and produce to identify and possibly repair “communication failure” or to deter “irrelevant” communication. We have highlighted two such resources: body gloss practices and a general organizing feature of social interaction, recipient design. By identifying such resources and analyzing how surgeons and nurses use them to coordinate their work we have moved beyond the view that clinical work involves technical and nontechnical skills, with communication falling into the latter category. Our interactional analysis shows that communication skills, such as surgeons’ formulation of instrument requests, and technical
skills, such as surgeons’ dexterity, go hand in hand: whether they tie knots or cut sutures, in using their bodies to do this so-called technical work they display meanings to the others around them that sustain and coordinate their actions. Without these interactional practices, surgical operations cannot be accomplished.

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TRANCEPTION SYMBOLS

( ) = inaudible sound

(3.0) = a three second pause

( ) = a micro pause

: = stretching of the sound of the utterance

REFERENCES


