Once considered to be an intangible aspect of “bedside manner,”
the scientific study of nonverbal communication during visits
between patients and medical physicians is now well documented.
Research suggests that physicians’ nonverbal behavior shapes partici-
pants’ visit communication (e.g., patients’ self-disclosure); ratings of
physicians’ rapport, dominance, and medical-technical skills; patients’
satisfaction with physicians; patients’ understanding and recall of visit
information; and patients’ adherence to physicians’ medical recommend-
dations. Physicians’ nonverbal behavior is consequential in other ways
as well. For example, both the accreditation of residency programs and
the certification of physicians require assessment of physicians’ compe-
tence in “interpersonal skills,” which involve “inherently relational”

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Manusov, and Richard Street for comments on earlier drafts.
and “humanistic” aspects of nonverbal and verbal communication (Duffy, Gordon, Whelan, Cole-Kelly, & Frankel, 2004). There is also some evidence that training in nonverbal communication skills aids success in the American Board of Surgery’s oral-certification exam, which is designed primarily to test candidates’ medical-technical skills or their “clinical reasoning, problem solving ability, and clinical judgment” (Rowland-Morin, Burchard, Garb, & Coe, 1991, p. 655).

This chapter begins by providing a rationale for studying nonverbal communication between medical physicians and their patients, reviews findings related to individual nonverbal behaviors or variables, and discusses new directions for nonverbal research. The premise of the final section is that the social meaning of individual nonverbal behaviors—and thus their production, understanding, and effects—is shaped fundamentally and irremediably by, and must be studied relative to, their situation within a variety of aspects of interactional context. This context includes other modalities of communication (e.g., other nonverbal and verbal behaviors), as well as norms and rules that structure the interaction itself, such as those dealing with turn taking, social action, and sequences of action.

**Rationale for Studying Nonverbal Communication**

Patients do not abide strictly by a rational-consumer model of medicine. That is, they seldom select and retain physicians, nor do they evaluate physicians and their medical care or competence, based solely on physicians’ medical-technical skills and patients’ health outcomes (Glassman & Glassman, 1981). Akin to organizational communication generally (Farace, Monge, & Russell, 1977), physicians’ and patients’ communication has at least two underlying dimensions: medical-technical (i.e., instrumental) and affective-relational. The affective-relational dimension appears to be particularly salient to patients. At the point when physical medical problems drive patients to seek professional medical help, such problems may create uncertainty, anxiety, and feelings of fear, frustration, and vulnerability in patients, who (1) must disclose private (and sometimes socially delicate, embarrassing, illegal, etc.) information (e.g., sexual history, drug use) to physicians who are relative strangers and (2) are largely dependent on physicians, who are relatively knowledgeable experts and legitimate brokers of treatment (Mishel, 1988).

Patients can discriminate between medical-technical and affective-relational dimensions of physicians’ communication (Bensing & Dronkers, 1992) and, within the latter set of messages, they are able to distinguish between “positive” and “negative” nonverbal affective-relational styles, such as those communicating “attention or concern” rather than “inattention or distance” (Aruguete & Roberts, 2002). Whereas patients base their evaluations of physicians’ communicative competence on both dimensions (Cegala, McNeilis, McGee, & Jonas, 1995), and although patients’ evaluations of these dimensions are positively correlated such that an increase in one tends to result in an increase in the other (Ben-Sira, 1982; Street & Buller, 1987), there is an accumulation of evidence suggesting that patients’ evaluations of the quality of physicians and their medical care are influenced more heavily by the affective-relational (vs. medical-technical) dimension of physicians’ communication (Ben-Sira, 1982; Griffith, Wilson, Langer, & Haist, 2003; Mechanic & Meyer, 2000).

This evidence leads to the conclusion that successful medical treatment involves physicians’ competent management of the
Nonverbal Communication and Physician-Patient Interaction

◆

The affective-relational dimension of communicative action. For example, practices of interaction that address the affective-relational dimension “positively” (e.g., reassurance) have been associated with decreases in patients’ requests for postoperative narcotics (Egbert, Battit, Welch, & Bartlett, 1964; Langer, Janis, & Wolfer, 1975) and increases in patients’ levels of physical functioning, such as their levels of blood glucose and diastolic blood pressure (Kaplan, Greenfield, & Ware, 1989). Although the affective-relational dimension of communication (including empathy and rapport) is managed partially through verbal behavior, such management involves nonverbal behavior primarily (Ekman & Friesen, 1969; Harrigan & Rosenthal, 1986).

The next section reviews associations between a variety of communicative, social, and psychological outcomes and the following nonverbal behaviors: gaze orientation, head nodding, and body orientation (including proximity). Space prevents an exhaustive review of all nonverbal variables, including smiling, touch, tone of voice, physical appearance, and skill at encoding and decoding emotion (for more on the latter, see Riggio, this volume). Given the concern in this section of the Handbook with the implications of our work, the variables reviewed here are relatively more “controllable” by, and thus “teachable” to, physicians.

♦ Findings Related to Individual Nonverbal Behaviors

PHYSICIANS’ GAZE ORIENTATION

Gaze orientation communicates one’s current attention to, availability for, and participation with others’ actions (or lack thereof; Goodwin, 1981; Kendon, 1990) as well as who one is addressing when speaking (Goodwin, 1981; Sacks, Schegloff, & Jefferson, 1974). Research on gaze in physician-patient interaction has focused on its effects on both verbal communication and visit or medical outcomes. Concerning verbal communication, Verhaak (1988) and Bensing, Kerrsens, and van der Pasch (1995) examined physicians’ gaze toward patients, and Van Dulmen, Verhaak, and Bilo (1997) examined the amount of time physicians gazed directly at patients’ faces, and these studies showed that physicians’ gaze orientation was associated positively with the amount of psychosocial (rather than somatic) information given by patients. Along similar lines, Duggan and Parrott (2001) found physicians’ lack of direct facial orientation toward patients to be negatively associated with patients’ self-disclosure (e.g., about life beyond symptoms). Some results are non-intuitive and beg further investigation. For example, Van Dulmen et al. (1997), found the amount of time that physicians gazed directly at patients’ faces was negatively associated with the amount of agreements given by patients and the amount of reassurance, orientation, and medical counseling given by physicians.

A somewhat inconsistent picture emerges when the research focus concerns visits or medical outcomes. For instance, Larsen and Smith (1981) discerned that physicians’ direct facial orientation toward patients was negatively associated with patients’ post-visit satisfaction with medical care. Relatedly, Harrigan, Oxman, and Rosenthal (1985) found physicians’ increased and decreased mutual gaze with patients to be negatively and positively associated with external raters’ evaluations of physicians’ rapport, respectively.2 These research studies suggest that gaze and face orientation toward patients may increase disclosure but decrease patients’ satisfaction. In possible contradiction to these findings, however, Smith, Polis, and Hadac (1981) showed...
that physicians’ time spent reading patients’ medical records, which was also physicians’ time spent gazing away from patients, was negatively associated with patients’ post-visit satisfaction and understanding of medical information. Furthermore, Bensing (1991) showed that physicians’ gaze toward patients was positively associated with external physician-raters’ evaluations of the quality of participant-physicians’ psychosocial care.

One explanation of this possible contradiction lies in an analysis of where physicians are gazing—and what physicians are doing—while patients are talking. For example, Harrigan et al. (1985) also found that, compared with low-rapport physicians, high-rapport physicians gazed at (i.e., read) patients’ medical records more often when not gazing at patients, but they were more likely to continue to gaze at patients when patients were talking. In support of this, Giron, Manjon-Arce, Puerto-Barber, Sanchez-Garcia, and Gomez-Beneyto (1998) revealed that physicians’ eye contact while patients spoke was positively associated with physicians’ psychodiagnostic abilities.

In sum, physicians’ gaze toward (rather than away from) patients appears to be positively associated with patients’ giving of psychosocial information, which may explain the concomitant positive associations between physicians’ psychodiagnostic abilities and patients’ positive evaluations of at least the affective-relational dimension of physicians’ communication. These findings are confounded by a lack of control for what physicians and patients are doing while gazing, however, as well as where patients are gazing (e.g., toward or away from physicians). A particularly salient issue seems to be whether physicians and patients are talking generally and, specifically, what social actions are getting accomplished through such talk (e.g., instructing patients to sit on the examination table vs. delivering bad medical news). The analytic “payoff” of looking at the larger interaction, rather than discrete variables, will be discussed later in this chapter.

PHYSICIANS’ HEAD NODDING

When people gaze at speakers, especially when speakers are producing multi-unit turns (e.g., when patients produce illness narratives or when physicians explain treatments), gazers nod their head frequently, which, at a minimum, communicates attention (Schegloff, 1982). Hall, Irish, Roter, Ehrlich, and Miller (1994) found that, compared with male physicians, female physicians nod more overall and they nod more to female patients. Harrigan and Rosenthal (1983) discovered external raters’ evaluations of physicians’ nodding to be positively associated with raters’ perceptions of physicians’ rapport. In a later study, however, Harrigan et al. (1985) found no association between nodding and rapport. Nodding is, however, more commonly studied in association with other variables than as an isolated cue, and the findings when nodding is viewed as part of a larger communicative function are more robust. For example, Weinberger, Greene, and Mamlin (1981) found physicians’ nonverbal encouragement—operationalized in terms of nodding and gesture—was positively associated with patients’ post-visit satisfaction. Duggan and Parrott (2001) showed likewise that physicians’ facial reinforcement—operationalized in terms of nodding and facial animation—was positively associated with patients’ self-disclosure (e.g., about life beyond symptoms).

PHYSICIANS’ BODY ORIENTATION

Although head movement and gaze orientation communicate persons’ current
engagement, the front of a person’s body communicates a frame of dominant orientation: a frame of space wherein long-term and dominant social actions are most likely to be focused (Goodwin, 1981; Kendon, 1990; Schegloff, 1998). The orientation of persons’ bodies communicates their availability or nonavailability for collaborative action. When two persons bring each other into (or remove the other from) their frame of dominant orientation, they establish (or dismantle) a participation framework (Goodwin, 1981).

This orientation appears to have a number of outcomes. Larsen and Smith (1981) found that the amount of time physicians spend with their bodies oriented toward patients was positively associated with patients’ post-visit satisfaction and understanding. Street and Buller (1987) showed that physicians’ indirect body orientation (i.e., away from patients) was positively associated with patients’ perceptions of physicians’ dominance. Harrigan et al. (1985) reported that physicians’ body orientation away from patients was negatively associated with external raters’ evaluations of physicians’ rapport. In a different vein, Giron et al. (1998) found physicians’ open face-to-face posture while patients spoke to be positively associated with physicians’ psychodiagnostic abilities. A range of studies has also found positive relationships between physicians’ proximity to and lean toward patients and outcomes such as patients’ post-visit understanding (Larsen & Smith, 1981; Smith, Polis, & Hadac, 1981) and external raters’ evaluations of physicians’ rapport (Harrigan & Rosenthal, 1983; Harrigan et al., 1985).

Overall, this work shows that physicians’ body orientation toward (and physical proximity to) patients appears to be positively and negatively associated with ratings of physicians’ rapport and dominance, respectively, and this may partially explain the positive association between physicians’ body orientation and patients’ satisfaction with physicians. As with gaze, however, these findings may be confounded by a lack of control for what physicians and patients are doing.

SUMMARY

A variety of individual nonverbal behaviors have been associated with communicative, social, and psychological outcomes. The majority of these outcomes relate to the affective-relational (vs. medical-technical) dimension of communication, such as ratings of physicians’ dominance, rapport, and likeability, and to psychosocial (vs. somatic) aspects of care, such as patients’ self-disclosure of lifeworld events and physicians’ psychodiagnostic abilities. Together, they suggest the important role that nonverbal cues may play in physician-patient interactions.

Despite the overall strength of their conclusions, the findings just reviewed can be extended in a number of ways that highlight new directions for research on nonverbal communication. Put generally, to understand the process more completely—that is, how these behaviors come to have the consequences that they do—research needs to be situated within a larger framework for understanding communication per se. Whereas communication simultaneously involves multiple, mutually influential modalities of meaning (nonverbal, verbal, artifactual) and is interactive inherently, much of the research done in the medical context focuses in isolation on one modality of behavior (i.e., nonverbal) produced by one participant (i.e., the physician). To make its largest contribution—to help understand how communication in the medical context comes to work as it does—research on physician-patient communication needs to be situated within (i.e., needs to control for) aspects of interactional
**context** that have been shown to shape how nonverbal behavior is produced and understood. The following section suggests how this may be done.

### New Directions for Research Dealing With Interactional Context

Street (2003) proposed an ecological model of communication that recognizes that “visit communication” and its outcomes are organized by reference to organizational, political, media, cultural, and interpersonal contexts. This section of the chapter extends Street’s model generally, and his interpersonal context specifically (which includes verbal and nonverbal communication), by recognizing the organizing effects of interactional context. That is, in addition to traditional conceptions of context, interaction has its own, independent orders of social organization (Goffman, 1983) that can affect both the production and the understanding of nonverbal communication. Over the past 30 years, three of the most robust “interaction orders” involve turn taking, social action, and sequences of talk and action. Before addressing these issues, however, this section begins with a discussion of the inseparability of nonverbal and verbal behavior.

**THE INSEPARABILITY OF NONVERBAL AND VERBAL BEHAVIOR**

Almost 15 years ago, Streeck and Knapp (1992) asserted that “the classification of communicative behavior as either ‘verbal’ or ‘nonverbal’ is misleading and obsolete” (p. 3). Although this position is not new, and has continued to be a mantra of research reform (see Bavelas & Chovil, this volume), its implications often go ignored. There are at least two different ways of conceptualizing the relationship between verbal and nonverbal behavior that focus on their co-occurrence in social meaning. The first conceptualization is that verbal behavior and nonverbal behavior constitute two distinct channels of communication that are attended to and processed separately by receivers (e.g., Ekman & Friesen, 1969). Researchers adopt this position tacitly whenever they examine phenomena whose functions entail both verbal and nonverbal communication (e.g., dominance) yet analyze such phenomena exclusively in terms of one channel, or modality, of meaning.

The second, alternative, conceptualization (which this chapter adopts) is that the meaning of communicative events is shaped by, and thus depends on, the “context” in which it is situated and that verbal and nonverbal behavior are each forms of context (Goodwin, 1995; Sanders, 1987). From this perspective, the relationship between verbal and nonverbal behavior is neither additive nor multiplicative, in the sense that each constitutes a separate yet combinable factor of meaning. Rather, their relationship is holistic and metamorphic, with a multitude of modalities (e.g., verbal, nonverbal, artistic) working together to convey a single meaning (for more on this, see McNeill, Cassell, & McCullough, 1994).

This second conceptualization shifts analytic attention away from the function of individual nonverbal behaviors to how they achieve their social meanings in and through interaction—that is, to the multimodal array of communication practices that participants rely on to accomplish certain meanings (Sanders, 1987). This conceptualization is in line with Burgoon’s (1994) message perspective and Stamp and Knapp’s (1990) interaction perspective on the nature of nonverbal communication, and Robinson and Stivers (2001) supported the validity of a multimodal perspective in physician-patient interaction specifically.
From this multimodal perspective, the first conceptualization (stated above) is statistically *reified* (rather than supported) by physician-patient studies showing that, when controlling for verbal variables, nonverbal variables retain independent significance (e.g., Bensing, 1991; Griffith, Wilson, Langer, & Haist, 2003).

**THREE ASPECTS OF INTERACTIONAL CONTEXT**

Taking into account the multimodal conceptualization, and because in face-to-face interaction, nonverbal behavior is produced and understood largely by reference to talk, researchers studying nonverbal communication need to account for the organizing effects of at least three aspects of interactional context: (1) turn taking, (2) social action, and (3) sequences of talk and action. Furthermore, researchers need to account for the fact that (4) individual nonverbal behaviors are (almost always) produced and understood by reference to each other. These four issues are discussed in order.

**Turn Taking**

Buller and Street (1992) noted that traditional measures of nonverbal behavior “do not account for how communicators *qualitatively* interpret the behaviors being *quantified*” (p. 135, emphasis in original). The underlying issue in their statement is whether operationalizations of nonverbal behavior are ecologically valid (i.e., relevant to participants). An integral component of operationalizing talk is *unitization*. In studies of physician-patient communication, nonverbal behavior has been unitized historically in terms of its duration and frequency (e.g., in seconds) across (sometimes randomly selected) segments of (or entire) visits. Contrary to this, *physicians and patients organize much of their nonverbal behavior relative to talk, and organize their talk according to turn-taking rules for ordinary conversation* (Sacks, Schegloff, & Jefferson, 1974; for a review, see Robinson, 2001a).

One example occurs with gaze orientation. Because gaze can communicate that one is “listening,” interactants orient to the general rule that recipients (e.g., physicians) should gaze at speakers (e.g., patients) when being spoken to (Goodwin, 1981). Turns of talk have consequential “positions,” such as beginnings, middles, and endings (Schegloff, 1996), and Goodwin (1981) showed that recipients’ gaze toward speakers is particularly salient at turn beginnings. For instance, in Extract 1, when the physician begins to ask his question (Line 1), he is gazing at the computer screen (see Figure 23.1, which corresponds positionally to the “1” in the transcript). Precisely at the completion of his question—that is, just as he is about to become a recipient of the patient’s talk—the physician shifts his gaze to the patient (Figure 23.2; commas “,” symbolize movement of the physician’s head, the “X” symbolizes movement of the physician’s head, the “X” symbolizes the point at which the physician’s gaze reaches the patient, and brackets “[ ]” symbolize simultaneous behavior).

**Extract 1**

```
| 01 | DOC: What’s wrng=with your ea:r[s. (.)] |
| 02 | DOC: [ , , , , , X] |
| 03 | PAT: I think they’re both infected. |
```
Due to the rules of gaze orientation in ordinary conversation (Goodwin, 1981), if speakers (e.g., patients) do not secure recipients’ (e.g., physicians’) gaze at the beginning of their turns, speakers use vocal hitches and perturbations—such as pauses, cutoffs, and other marked prosodic patterns—to secure recipients’ gaze prior to beginning or completing their turns. This is equally true in physician-patient interaction (Heath, 1986; Ruusuvuori, 2001). In Extract 1, the patient does secure the physician’s gaze prior to beginning her turn, and she produces a fluent response (Line 3). This, however, is not the case in Extract 2. When the physician completes his question “What’s up.” (Line 1), he is gazing down at the computer keyboard (Figure 23.3).

At the outset of her response (Line 2), the patient attempts to secure the physician’s gaze by pausing briefly (i.e., breathing in, symbolized by “.h”) and further delaying her answer with “Uhm.” In this case, the patient does not succeed in securing the physician’s gaze, and she continues to produce a self-diagnosis: “I believe I have a sinus infection.” (Line 2).4 Research shows, however, that although recipients’ gaze is particularly salient at the beginning of speakers’ turns, it is relevant throughout speakers’ turns, and speakers continue frequently to work to secure recipients’ gaze (e.g., Goodwin, 1981; Heath, 1986). When the patient in Extract 2 continues to produce more talk (Line 3), she again attempts to secure the physician’s gaze by cutting herself off (symbolized by the hyphen, “a-”) and pausing for three tenths of a second (each tenth is symbolized by a dash, “(—)”). This time, she succeeds—that is, immediately after her cutoff and two tenths of a second of silence, the physician shifts his gaze toward the patient (Figure 23.4). The patient begins to speak again precisely as the physician’s gaze arrives.
Recipients’ gaze is relevant not merely once (i.e., fleetingly) but throughout speakers’ turns (Goodwin, 1981), and speakers may work to recover recipients’ lost gaze. For example, in Extract 2, as the patient describes her “stuffy nose” (Line 3), the physician removes his gaze back to the computer screen (Figure 23.5). The patient, however, is not finished speaking. Instead, as the patient describes (and gestures with her right hand toward) the location of her problem (Lines 5–6), she markedly stretches and inflects “ri:ght,” (symbolized by the colon and the comma, respectively) and pauses for three tenths of a second, which succeeds in resecuring the physician’s gaze (Figure 23.6).

Extract 2 raises an additional issue dealing with unitization. Physician-patient talk has been coded historically in terms of vaguely operationalized “thought units” or “utterances.” However, turns (1) are constructed from particular types of turn-constructional units, (2) can contain more than one turn-constructional unit, and (3) are produced and understood in terms of turn-constructional units (Sacks et al., 1974). In Extract 2, it can be argued that the patient’s turn includes three turn-constructional units (“I believe I have a sinus infection.”, “I’ve had a cold you know stuffy nose fer about a week”, and “an’ then Saturday it’s kinda stayed right in the eye ear”) and that the patient orients to the relevance of the physician’s gaze in (and before the completion of) each unit.

In sum, gaze orientation is organized largely by reference to turn construction. Not only have there been specific calls for understanding physicians’ and patients’ gaze orientation in terms of turn taking (Irish, 1997), but there is preliminary evidence that doing so can produce analytic payoff. For example, Harrigan et al. (1985) found that high (vs. low) rapport physicians are more likely to gaze at patients when patients are speaking. Giron et al. (1998) measured both physicians’ gaze and body orientation toward patients separately depending on whether physicians or patients were speaking and found these variables to be positively associated with
Figure 23.4

Figure 23.5
Figure 23.6

Figure 23.7
physicians’ psychodiagnostic abilities only when patients were speaking.

Other nonverbal behaviors, such as head nodding, also appear to be organized by reference to turn construction. For example, across Extract 3, the physician maintains his gaze and body orientation toward the patient (Figure 23.7). In the transcript, “/” and “\” symbolize the upward and downward nodding of the physician’s head, respectively.

Extract 3 [MC:11:02]

01 DOC: When-did that start. (.) last week? hhhhhhh thuh co[ld? ]
02 PAT: [Y:eah] might even
03 started duh week before a little bit. an’ then (.)
04 DOC: [/\ ]
05 PAT: last week w’s- thuh sore throat [came an’- (.)] now
06 DOC: [ / \ ]
07 DOC: °Okay.°
08 PAT: si:nums. [(-)]
09 DOC: [ / ]
10 DOC: °Okay.°

The physician’s three instances of nodding (Lines 5, 7, and 9) map finely onto places where the patient’s turn-constructional units (in this case, sentences) are possibly (or projectably) complete. The first nod begins as the patient is saying “before” (Line 4), which is a possible sentence ending (i.e., “might even started duh week before”); the second nod begins after “throat” (Line 6), which is a possible sentence ending (i.e., “An’ then last week w’s thuh sore throat”); and the third nod occurs in the two tenths of a second of silence after “si:nums.” (Line 8), which is a possible sentence ending (i.e., “An’ now thuh sinus.”).

Like gaze, nodding has been coded historically in terms of gross frequency. If nodding is organized relative to turn-constructonal units, however, then it may have different meanings depending on its position within turn-constructonal units, such as being positioned before or after they are possibly complete. Importantly, the relationship between nonverbal behavior and turn taking does not stop at gaze orientation and head nodding. For example, Harrigan (1985) found that physicians and patients self-touched more at the beginning and middle (vs. the end) of utterances. In line with evidence from ordinary conversation (e.g., Streeck, 1993), a variety of physicians’ and patients’ nonverbal behaviors are organized by reference to turn construction, such as
touching, gesturing, and smiling (Beach & LeBaron, 2002; Haakana, 2002).

Social Action

Once nonverbal and verbal communication are reunited, researchers must recognize that (1) persons produce and understand all communication primarily in terms of the action(s) it performs (e.g., explaining, advising, informing; Schegloff, 1995); (2) actions are organized by social rules that transcend individual actors (Heritage, 1984); and (3) different social rules—for example, the rules for (or practices of) providing good (vs. bad) diagnostic news (e.g., Maynard, 2003)—shape at least verbal behavior differentially (Heritage, 1984).

Although the claim that the social organization of action structures nonverbal behavior is in need of further support, it is buttressed by a variety of findings. Harrigan (1985) found that patients self-touched more when answering questions than when being asked questions and concluded that “the semantic context of an utterance may be expected to exert the strongest influence on the expression of self touching” (p. 1164), which “is more complex than a simple cue of anxiety” (p. 1167). Certain actions, such as apologizing for causing emotional pain (Beach & LeBaron, 2002), may make physicians’ touching of patients more normative relative to other actions and thus affect patients’ evaluations of physicians’ touch.

In line with Goffman’s (1963) notion of civil inattention, while patients engage in a variety of private actions such as undressing (Heath, 1986), it may be more normative for physicians to avert their gaze, even if engaged in conversation. The action of “remembering” publicly is associated commonly with gazing away from interlocutors (Beach & LeBaron, 2002; Goodwin, 1987). When patients discuss personally sensitive or embarrassing events (Beach & LeBaron, 2002; Heath, 1986, 1988), or when they receive bad medical news (e.g., cancer diagnoses; Maynard, 2003), they sometimes look away from their interlocutors or cover their faces. One systematic finding, then, is that while physicians engage in physical examination, patients tend to adopt a middle distance gaze orientation “away from the doctor yet at no particular object within the local environment” (Heath, 1988, p. 149).

The possibility that the social organization of different verbal actions structures nonverbal behavior differently has direct implications for the types of outcomes discussed earlier. For example, it has already been documented that physicians’ nonverbal behavior affects raters’ evaluations of the affective-relational dimension of communication. Such evaluations are, however, also affected by physicians’ verbal behaviors, which shape outcomes. For example, when physicians are more verbally empathetic (e.g., provide more reassurance), patients are more satisfied and adherent to medical recommendations and less willing to sue for malpractice (for a review, see Frankel, 1995). When providers are less verbally domineering or controlling (e.g., less directive), patients are more assertive, expressive, and disclose more information (Street, 1992b); are more satisfied (Street, 1992a); and experience better physical-health outcomes (e.g., metabolic control; Street et al., 1993). Researchers need to determine if these types of verbal behaviors structure nonverbal behavior in particular ways, and they need to analyze nonverbal behaviors in conjunction with them.

If researchers are going to link nonverbal behavior to talk in interaction, in this case physical-patient interaction, and if different social organizations of verbal action structure nonverbal behavior differentially, then,
at the very least, researchers need to refine extant coding schemata to better control for social action. The bulk of most coding schemata categorize talk not in terms of social action but rather in terms of a combination of grammatical form and topical content. These limitations have been addressed partially by narrowing analyses to, and developing new coding schemata around, particular (classes of) social actions, such as patients’ requests for medical services (Kravitz, Bell, & Franz, 1999).

**Sequencing**

One of the most fundamental interactional contexts organizing social action is the adjacency-pair sequence (Schegloff & Sacks, 1973). In its basic form, the adjacency-pair sequence is composed of two turns of talk: a first-pair part, produced by one speaker, which initiates a course of action, and a second-pair part, produced by a different speaker, which responds to the initiated action. Space limitations prohibit full explanation of the adjacency-pair sequence, and only two points are made here.

First, first-pair parts affect second-pair parts by normatively obligating, and constraining what counts as, relevant responses. For example, “Yes”/“No”-formatted questions constrain initial responses to versions of “Yes” or “No” (Raymond, 2003), and such constraints can have implications for patient participation (Heritage & Robinson, 2006; Robinson, 2001a). Second, first-pair parts establish frameworks for understanding second-pair parts, and thus the meaning of communicative behavior is heavily influenced by its sequential positioning (Schegloff & Sacks, 1973).

For example, in Extract 3, the physicians’ first two head nods (Lines 5 and 7) are produced after the patient’s response and are understood as acknowledging the patient’s talk and as encouragement to continue (Schegloff, 1982). Evidence for this claim is that in each case, the patient continues to produce a new turn-constructional unit. In contrast, in Extract 4, the physician’s head nod (Line 4) is produced as a response to the patient’s request for confirmation (Line 1); because of its sequential positioning, it gets understood differently as a confirmation.

Extract 4 [MC:14:02]
01 PAT: That takes effect right away? ((gazing at doctor))
02      (1.2)
03 PAT: Thuh [flu shot.]
04 DOC: [               ] /\[/
05 DOC: [°Mm hm, °
06 PAT: ((Shifts gaze from doctor to computer))

Research attempting to discover variables that affect physicians’ and patients’ communication has been criticized for (1) not accounting for “the two-way and contingent (i.e., sequential) nature of physician-patient interaction” (Hall, Harrigan, &
Rosenthal, 1995, p. 25) and (2) implying claims about causation while using the correlation statistic (for other critiques, see Buller & Street, 1992; Street & Buller, 1987). Because correlations do not reveal the direction of causality, because much of social action is organized by the adjacency-pair sequence, and because first-pair parts affect second-pair parts, if sequencing is not accounted for, then significant correlations are constantly in danger of being sequentially spurious.

It also appears that nonverbal behavior can be sequenced independent of verbal adjacency-pair sequences (although nonverbal sequences are still often organized by reference to talk). That is, there is preliminary evidence that physicians’ and patients’ nonverbal behaviors are nonrandom, patterned, and synchronized. For instance, Street and Buller (1987) provided evidence that physicians and patients “matched” gaze orientation, body orientation, and illustrative gestures, and Street and Buller (1988) demonstrated physician-patient reciprocation or convergence regarding body orientation. Koss and Rosenthal (1997) found external raters' evaluations of physician-patient nonverbal synchrony to be positively associated with raters’ evaluations of physician-patient rapport. Several reviews (Kiesler & Auerbach, 2003; Lepper, Martin, & DiMatteo, 1995) have suggested that the presence or absence of physicians’ and patients’ nonverbal synchrony (or exchange) plays a role in a variety of participants’ affective-relational attributions, such as affiliation and dominance, respectively (for more on synchrony, see Tickle-Degnen, this volume).

The above correlational research is supported by focused studies of interaction. For example, in line with the observation that gaze communicates persons’ current focus of attention, Heath (1988) showed that a physician’s gaze shift to a female patient’s chest can lead directly to the patient gazing at her own chest. Similarly, Heath (1986) showed that physicians’ gaze shifts to objects of discussion, such as X rays, can lead directly to patients’ gazing at the same objects. In the same way that patients can use vocal hitches and perturbations to solicit physicians’ gaze (see above), patients can use nonverbal behaviors—such as gaze shifts toward physicians, hand gestures, torso shifts, and leg movements—to solicit both physicians’ gaze and talk (Heath, 1986). For example, patients sometimes seek physicians’ gaze nonvocally for purposes of exhibiting embodied characteristics of their suffering (Beach & LeBaron, 2002; Heath, 1986, 2002). In Figure 23.6, in addition to using vocal hitches and perturbations to solicit the physician’s gaze, the patient additionally gestures with her right hand to locate the position of her symptoms (i.e., her “e:ye e:ar”). Although more research is necessary, Heath (1986) noted that some of these nonverbal sequences operate in a fashion similar to verbal summons-answer sequences (Schegloff, 1968).

The Inseparability of Nonverbal Behaviors From Themselves

In addition to turn taking, social action, and sequences, nonverbal behavior embodies its own interactional context. That is, the social meaning of individual nonverbal behaviors can be altered when they are employed simultaneously. For example, Harrigan and Rosenthal (1983) found external raters’ evaluations of physicians’ rapport to be associated with interactions between physicians’ torso position (i.e., forward or backward lean), head nodding, and leg position (i.e., crossed or uncrossed). Based on these types of findings, Harrigan and Rosenthal (1986) later asserted,
Nonverbal units of behavior are difficult, if not impossible, to study in total isolation from one another. While the head is nodding, the trunk may be angled forward or back, the limbs may be still or moving, the face expressionless or animated, and the gaze steady, averted, or darting. Each unit of nonverbal behavior is interrelated in that each is capable of influencing the evaluation of another behavior. (p. 45)

Studies have not often tested for interaction effects between individual nonverbal behaviors. In fact, such interactions are obscured when individual nonverbal behaviors are collapsed into larger-order variables, such as immediacy, which has been operationalized in terms of decreased physical proximity and increased touch, forward lean, gaze, and body orientation (Larsen & Smith, 1981; see also the section on head nodding). This is not to suggest that the aggregation of individual nonverbal behaviors is completely unprincipled. For instance, researchers often evaluate their coherence with statistical techniques, such as factor analysis. Aggregation is less principled, however, when it is motivated by professional demands involving acceptable levels of interrater reliability or significance, statistical demands involving cell size, and so on. Aggregation does, however, obscure the effects of individual nonverbal behaviors, as well as the fact that individual nonverbal behaviors do interact.

One of the most well-documented interrelationships is between gaze and body orientation (Mehrabian, 1967). Although different segments of the body (e.g., the head, torso, and legs) can be oriented in different directions (Kendon, 1990), there remains a socially understood body-segment hierarchy in terms of persons’ levels of attention and engagement. Specifically, even though gaze orientation communicates persons’ current foci of attention, relative to upper-body segments (e.g., the head), lower-body segments (e.g., the legs) more strongly communicate persons’ frames of dominant orientation (Kendon, 1990).

For example, in Figure 23.5, the physician’s head, torso, and legs are in alignment and face the desk or computer; the patient is gazing at the physician. When physicians arrange their body segments to have divergent orientations—for example, in Figure 23.6 (compared with Figure 23.5), when the physician keeps his torso and legs oriented toward the desk or computer yet rotates his head 30° to the right of his body to gaze at the patient—they may communicate (1) postural instability (e.g., of their head relative to their body); (2) potential resolutions to such instability by reference to the more stable segments of the body (e.g., returning their head into alignment with their body); (3) an orientation to multiple courses of action (e.g., one by their head, such as engaging the patient to ask them a question, and another by their body, such as documenting the patient’s answer in the medical records); and (4) a ranking of these multiple courses of action in terms of level of orientation (e.g., the action of documenting is more primary and long term than that of engaging the patient in talk; Robinson, 1998).

The interrelated social organizations of gaze and body orientation can affect raters’ attributions. For example, in a nonmedical context, Mehrabian (1967) found the amount of time senders maintained head orientation toward receivers to be positively associated with external raters’ evaluations of senders’ positive attitudes toward receivers, but only when senders’ bodies were also oriented toward receivers. In a medical context, Ruusuvuori (2001) examined patients’ responses to physicians’
opening questions (e.g., “What can I do for you today?”) and showed that when physicians removed their gaze from patients prior to patients having completed their responses, patients tended to produce disfluencies to (re)solicit physicians’ gaze. Ruusuvuori found that patients produced fewer disfluencies when physicians’ bodies were oriented toward (vs. away) from patients (e.g., Figure 23.7 compared with Figure 23.6). Ruusuvuori’s findings suggest that in terms of physicians’ levels of engagement with patients (i.e., attention to patient’s responses), patients understand the absence or removal of physicians’ gaze differently depending on the orientation of physicians’ bodies.

The interrelationship between gaze and body orientation can be complicated by other nonverbal behaviors. For example, in a nonmedical context, Goodwin (1981) suggested that recipients’ lack of attention communicated by shifting their gaze away from speakers can be partially offset by recipients nodding during and after their gaze removal. To further complicate matters, because gaze and body orientation are used primarily to communicate (dis)engagement, their understanding cannot be separated from that of the objects being (dis)engaged. Patients can differentiate between physicians’ gaze at patients’ eyes versus other body parts (e.g., legs, breasts, backs), versus medical records, with different interactional and attributional implications (Heath, 1986, 1988; Robinson, 1998).

♦ Conclusion

This chapter reviews findings related to nonverbal behavior and physician-patient interaction and shows that physicians’ nonverbal behavior—which is integral to the construction and management of empathy, rapport, and generally a “positive” affective-relational communication style—has wide-ranging effects (direct and indirect) on patients’ communicative, social, psychological, and physiological health outcomes. Despite these empirical strides, research on nonverbal communication can be improved. The bulk of prior research has focused exclusively on individual nonverbal behaviors (e.g., body orientation) or coherent aggregates of nonverbal behaviors (e.g., reinforcement). This chapter argues that the social meaning of nonverbal behavior—and thus its production, understanding, and effects—is fundamentally and irremediably shaped by, and thus must be studied relative to, its situation within a variety of aspects of interactional context. This is not to say that the effects of nonverbal behavior are relative. Rather, nonverbal behavior is organized systematically and finely by reference to both talk and other nonverbal behavior.

This chapter demonstrates that physicians’ production of individual nonverbal cues (e.g., gaze, body orientation, head nodding), and patients’ understandings of such cues, is organized by rules associated with turn taking, the construction of particular social actions, the sequencing of actions, and the organization of other nonverbal behaviors (e.g., the interorganization of gaze and body orientation). Not taking these aspects of interactional context into account obscures our understanding of the cause-effect relationships between nonverbal (as well as verbal) communication variables and their outcomes.

Relative to research on nonverbal communication between 1965 and 1995, research over the last 10 years has languished. New directions in research point toward developing new ways of classifying—that is, conceptualizing and measuring—nonverbal communication. On the one hand, “without classification, there
Nonverbal Communication and Physician-Patient Interaction

could be no advanced conceptualization, reasoning, language, data analysis or, for that matter, social science research” (Bailey, 1994, p. 1). Traditional methodologies for coding interaction will always (for a variety of statistical and other reasons) be blunt to the ecological validity of interaction (Mishler, 1984). As such, advances in research will require large-scale partnerships between multiple teams of researchers representing multiple methodological and ontological perspectives. Largely qualitative research on the interorganizational relationships between multiple modes of communication (e.g., verbal, nonverbal, artifactual) must proceed both simultaneously and in conjunction with largely quantitative, effects-based research, preferably without too many analytic compromises on either side.

♦ Notes

1. Because of space limitations, this chapter excludes research on patient-nurse and patient-psychotherapist interaction (for a review, see Caris-Verhallen, Kerkstra, & Bensing, 1999, and Hall, Harrigan, & Rosenthal, 1995, respectively).

2. Compared with self-report measures of emotional expressiveness, those that are based on external raters’ observations of concrete behaviors are more conservative and thus more appropriate for isolating nonverbal “predictors” of behavior (Riggio & Riggio, 2002).

3. Overall, researchers seldom measure physicians’ and patients’ turns. For an exception, see Street and Buller (1988), who found physicians’ turns to be longer than those of patients and older patients’ turns to be longer than those of younger patients.

4. The fact that the patient’s “h Uh:m” does not secure the physician’s gaze in this particular instance does not invalidate it as being a member of a class of practices designed to do so (Goodwin, 1981; Heath, 1986; Ruusuvuori, 2001). As this section goes on to discuss, this extract demonstrates both the interrelated and the negotiated character of verbal and nonverbal communication.

5. The argument concerning social action can be extended to social activity. In physician-patient communication, medical action is frequently produced within specific medical phases or activities. For instance, primary-care acute visits have roughly six phases: opening, problem presentation, information gathering such as history taking and physical examination, diagnosis, treatment, and closing (Robinson, 2003). These phases can have their own forms of social organization that can shape the production and understanding of their constituent actions, as does opening (Robinson, 1998), problem-presentation (Robinson & Heritage, 2005), and closing (Robinson, 2001b). Along these lines, a number of studies of nonverbal communication have controlled for medical phase (e.g., Duggan & Parrott, 2001; Harrigan, Oxman, & Rosenthal, 1985; Larsen & Smith, 1981; Street & Buller, 1987).

♦ References


