

Preparing medical students to become attentive listeners

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Abstract

Background: The ability to listen is critically important to many human endeavors and is the object of scholarly inquiry by a large variety of disciplines. While the characteristics of active listening skills in clinical practice have been elucidated previously, a cohesive set of principles to frame the teaching of these skills at the undergraduate medical level has not been described.

Aims: The purpose of this study was to identify the principles that underlie the teaching of listening to medical students. We term this capacity, attentive listening.

Methods: The authors relied extensively on prior work that clarified how language works in encounters between patients and physicians. They also conducted a review of the applicable medical literature and consulted with experts in applied linguistics and narrative theory.

Results: They developed a set of eight core principles of attentive listening. These were then used to design specific teaching modules in the context of curriculum renewal at the Faculty of Medicine, McGill University.

Conclusions: Principles that are pragmatic in nature and applicable to medical education have been developed and successfully deployed in an undergraduate medical curriculum.

The individual patient should be able to expect a doctor as an attentive listener, a careful observer, a sensitive communicator, and an effective clinician;...

Edinburgh Declaration, 1988

Introduction

This essay is the second in a series on preparing medical students to become observant, attentive and thoughtful physicians. The first focused on the teaching of visual observation. We now turn our attention to listening. The quote above is extracted from the report of a 1988 conference held in Edinburgh under the auspices of the World Federation for Medical Education and co-sponsored by the World Health Organization; the meeting focused on making the training of physicians more responsive to the health needs of communities. It is appropriate in setting the context for this essay as it underlines the central role that listening has in clinical practice. Furthermore, the specification of listening as a skill distinct from communication provides additional motivation for the explicit teaching of listening skills.

The major complaint that patients have about their encounters with physicians is that doctors do not listen – the evidence is legion (Golman 1991; Chisholm et al. 2006; Boudreau 2008). Unfortunately, the importance that patients attribute to listening has not led to a curricular emphasis on proficiency in listening skills, nor to its recognition as a

Practice points

- Although attentive listening is critical for effective physician communication with patients, it is often neglected in specific guides to the teaching of communication skills.
- A set of eight core principles of attentive listening can guide the development of specific teaching activities and tasks.
- A basic understanding of language use, especially how it is used to reflect and create meanings, is important for attentive listening.
- A crucially important principle is the necessity to develop an awareness of the inferences generated by the listener during attentive listening.
- The teaching of attentive listening can benefit from the use of audio editing programs which can graphically present the acoustic features of human language viz., paralanguage.

personal education goal amongst physicians. The experience of not being listened to and hence, not being heard, is a major source of patient dissatisfaction and failures in communication are often cited as an underlying motive by patients for lawsuits (Vincent et al. 1994; Levinson et al. 1997). Such observations have served as a strong impetus for the teaching of communication skills in undergraduate medical education.

Excellent and comprehensive textbooks on the nature of communications in the health professions now exist (Lipkin et al. 1995). Several strategies for teaching communication skills have been validated and have resulted in the dissemination of a series of detailed handbooks such as the Calgary–Cambridge Guide (Silverman et al. 2005), the Bayer–Fetzer Approach (Duffy et al. 2004) and the SEGUE Framework (Makoul 2001). The acceptance by medical educators of the need to make communication skills a feature of core curriculum has been salutary. However, most of the teacher and learner manuals make scant mention of the skill of listening. It seems that authors of such materials assume that listening is an innate skill, present early in development and hardly in need of special attention. However, this stance ignores the complexities of listening and misses the special features that characterize attentive listening.

Listening is a complex phenomenon that is part and parcel of day to day life. It is also addressed by many disciplines, the most obvious being music, but also linguistics, communication studies, sociology, education, philosophy and business, to name a few. These disciplines will, to varying degrees, explore many situations where listening is considered significant (e.g. conflict resolution, semiotics, discourse analysis, language development and rhetoric). This situation has led to an impressive array of approaches, each with its favored audience. Examples include: active listening (in the health professions); effective listening (in business and management); analytic listening (in music); empathic listening (in psychotherapy); and dialogic listening (in linguistics). The definition and scope of listening are therefore likely to be highly contextual. Nevertheless, a few key features appear common to all. Listening is dependent upon the physiological process of audition and implies the presence of at least two persons – one of whom is a recipient, a hearer or listener. The Oxford English Dictionary (2008) definition of the transitive verb, 'listen' is: 'to hear attentively; to give ear to; to pay attention to (a person speaking or what is said)'.

Given the cardinal place of listening in the clinical encounter, we set out to develop a set of principles for understanding and teaching listening in clinical medicine. We follow with specific suggestions as to how these skills may be inculcated in medical students.

Background and context

Our motivation for teaching listening arose in the context of curricular renewal at McGill University. In 2005, our Faculty of Medicine introduced a new curricular component entitled physicianship (Boudreau 2007). Physicianship is not a term in common usage and merits definition; it is a noun, and like the word 'friendship', refers to a state wherein one possesses the knowledge and skills necessary for the function and office of physicians. In this context, the term office refers to an obligation. As understood at McGill, physicianship also speaks to the dual roles of the physician: as healer and professional. Our underlying premise is that the primary mandate of medicine is the care of sick persons and relief of their suffering; this is the focus of the healer role. Professionalism

deliver its services (Crues 1997). Physicianship is enacted through a clinical method, the toolbox of skills necessary for the physician to accomplish the clinician's mandate. It comprises the following skills: observation; listening; communication skills; narrative competence and description; physical examination; clinical thinking and reasoning; and self-reflection. In this article, we focus on listening.

In developing the modules on listening we were guided primarily by the previous work of one of the authors of this paper, Eric Cassell. In the early 1970s, he audiotaped conversations that took place within 800 patient-doctor dyads, many of them over recurrent visits. The transcribed conversations were analyzed and resulted in an enriched understanding of how language works and how it can be used in the clinical setting (Cassell 1985). We were also informed by a review of the medical education literature and enlisted the help of experts in linguistics and narrative theory.

Course development: guiding principles

As described in the companion paper on clinical observation, we argue for the adoption of four principles in guiding course development for the teaching of clinical skills. These are as follows.

- (1) A curricular blueprint must accept that each element of the clinical method (e.g. listening) is a fundamental and necessary core clinical skill. Consequently, it must be integrated in core curricula, with the requirement that all students will participate in related activities.
- (2) Specific learning objectives must be clearly specified.
- (3) The teaching strategies employed should respect the generally accepted norms for skills teaching, an important aspect of which is the need for repetitive practice. There must also be performance assessments, with both formative and summative intents. Detailed and prompt feedback on performance (in this instance, listening performance), is critically important.
- (4) Medical educators must not lose sight of the fact that they are teaching medicine; in this instance, the focus is on listening and language use, not linguistics. In this spirit, we consider that learning should, in the ideal situation, take place in clinically meaningful contexts.

Core principles of listening in the clinical context

We have identified eight core principles in what we have labeled 'attentive' listening.

- (1) Attentive listening is a perceptual, cognitive and social act.
- (2) Attentive listening is an active process.
- (3) Attentive listening is triadic: the speaker, the utterance, and the listener.
- (4) Listening attentively involves focusing on word choice.

- (5) Listening attentively requires: receptiveness; an understanding of how spoken language works; and an ability to move between open-mindedness and an awareness of inference.
- (6) Attentive listening can accomplish the following: reveal the personhood and concerns of the speaker (i.e. the patient); produce diagnostically relevant data; assist in healing.
- (7) Attentive listening is not a neutral act – it can have positive and negative impact on the patient, physician and their relationship.
- (8) Attentive listening necessitates the formation of new habits.

We now discuss each of these principles in turn.

Attentive listening is a perceptual, cognitive and social act

There is a tendency to confuse listening with hearing. The ability to hear, to activate appropriate neurosensory pathways, is a necessary but insufficient requirement for listening. Listening is a perceptual and cognitive act that includes interpretation. A listener processes and thinks about what is heard – even if steps or elements occur below awareness. There is an anatomico-physiological correlate to this. There are actually many more axons running from primary sensory areas in the cerebral cortex to the thalamus than vice versa. There are a greater number of efferent compared to afferent fibres and some of these descending fibres go all the way to the cochlea. Although much remains unknown about the role and functional properties of this efferent system, the implication is that the cortex does not simply passively receive sensory input but that it actively modulates it. The cortex may hear/see/feel what is of interest or relevant at a given moment.

The duality of 'hear/listen' is raised in an intriguing paper on medical phenomenology. Published in the *Annals of Internal Medicine*, Baron introduces the concept of hermeneutics to the discourse of internal medicine (Baron 1985). He begins the article by describing a patient encounter where he is auscultating (sic) a patient's thorax. When the patient starts to ask a question, the physician's response is, 'Quiet, I can't hear you while I'm listening.' This juxtaposition of listening and hearing is purposeful, calling attention to the object of listening. The import of his article is that physicians must actively choose what to listen to – in the previous clinical scenario, not simply to adventitious lung sounds but also to the person in context.

Attentive listening is an active process

Listening implies work; it is not a passive phenomenon. In the patient-doctor setting, where goal-oriented interaction is the rule, the listener is engaged in many tasks, often attended to concurrently. Depending on the circumstances and context, the doctor may be listening to ascertain if life or limb are at risk; to indicate to the patient that confidences are welcome and will be respected; to seek information that will help in

concerns, expectations and sense of illness; to gather clues to the patient's insight and capacity to collaborate in care.

Attentive listening is triadic: the speaker, the utterance, and the listener

A listener will hear and apprehend an utterance. The utterance is the basic unit of spoken language. It is generally felt to be a natural unit of speech bounded by breaths and pauses. It is where the being of language resides. But, these utterances are not neutral or inert – the equivalent of 'bare unadulterated facts'. They are imbued with meanings and the meanings they carry always belong to persons. They will depend on the persons who are uttering them and hearing them. Therefore, the process occurs on three levels: the spoken word, the perspectives (sensory, emotive, cognitive and cultural) of the speaker and those same perspectives in the hearer. Listening is thus a triadic process. Aristotle used a similar framework to describe rhetoric: 'For of the three elements in speech-making – speaker, subject, and person addressed – it is the last one, the hearer, that determines the speech's end and object.' (Aristotle 1959).

Listening attentively involves focusing on word choice, paralanguage and non-verbal cues and signs

The choices that patients make in selecting words, and the way they put them together, reveal two things: (1) they describe what the speaker is referring to or trying to tell the listener and (2) they describe the speaker himself or herself. Bakhtin, in his influential essay, 'Discourse in the novel', says:

[in language], ...there are no 'neutral' words and forms – words and forms that can belong to 'no one'; language has been completely taken over, shot through with intentions and accents.... All words have the 'taste' of the profession, a genre, a tendency, a party, a particular work, a particular person, a generation, an age group, the day and hour. Each word tastes of the context and contexts in which it has lived its socially charged life; all words are populated by intentions (Bakhtin 1981).

The next quote, from a clinical setting, illustrates Bakhtin's theory about language. When a patient says, 'I had a stomach upset for the first time in months; I went to a party, stupidly forgot and ate all sorts of ridiculous things.' the adverb 'stupidly' does not simply describe the forgetting; it may also suggest that the speaker has another intention, that is, to label the 'forgetter' as being stupid.

In addition to the words themselves are the non-word features of spoken language, referred to as paralanguage. Paralanguage includes the prosodic quality and acoustic shape of human speech and includes aspects such as voice quality, volume, speech rate, rhythm and pauses. These data provide important clues on the emotional and affective states of the speaker and are particularly crucial in the clinical setting.

Non-verbal communication, on the other hand, resides in

needs to pay close attention to movements of the eyes and lips, facial expressions, body position and stance, voluntary movements (especially of the hands) as well as any involuntary movements, for example, tics or tremors.

Some commentators have described the 'what' of listening in other terms. For example, Mishler has proposed that a clinical encounter involves two archetypally different voices, (linguists referring to voices as speaking personalities): the voice of medicine and the voice of lifeworld (Mishler et al. 1989). Bub suggests that medical doctors and psychologists often listen to laments; the lament is 'something universal and specific that patients want heard and understood.' (Bub 2004). These authors point to what can be properly appreciated by a skilled clinical listener and underscore the need to provide a foundational understanding of spoken language in educating medical students.

The reader might be interested in knowing that communication scholars have designed questionnaire-based inventories, similar to those developed for personality profiles, to identify the 'listening styles' of individuals. One framework describes four listening style preferences: people listening, action listening, content listening and time listening (Weaver et al. 1996). Another has examined the evolution of medical students' preferences for specific styles as they proceed through the early part of an undergraduate medical program (Watson et al. 1999). While it is useful for learners and teachers alike to understand that the approach to listening may vary based on context, and presumably that access to a range of styles may be helpful, this realization does not, at the outset, assist educators in teaching listening skills. It must also be noted that certain experts in communication studies have denied that listening abilities can be improved through training (Petrie 1964). We respectfully disagree with them.

Listening attentively requires: receptiveness, an understanding of how spoken language works, and an ability to move between open-mindedness and an awareness of inference

Receptiveness refers to the quality of 'being-ness' in which the listener finds himself or herself at a particular time, in a particular place and context, and in the presence of a particular speaker. It can be encapsulated with the term 'a frame of mind'. It is interesting that in English, the phrase 'to listen' is an active process, a verb – a doing of something. In contrast, in French, the equivalent expression is 'être à l'écoute' – this is best translated as 'being in a state of listening'. This linguistic distinction underlines that both aspects should be operative in clinical settings: being receptive and being engaged in an actual performance.

To understand how language works one must appreciate its importance in creating reality. It is often said that humans do not understand meaning except through language. Cassell states, 'By means of language we not only describe reality, we actually appropriate it, that is 'we make it real' to ourselves. This appropriation may be – and usually is – highly individual' (Cassell 1985). Bakhtin has described the act of speech as a 'literary-verbal performance' (Bakhtin 1981). As Cassell

he illustrates with an example, 'Whereas one sibling may think of her mother as being a cripple, another may think of her as having a slight limp... language can, not only describe reality, it can create it' (Cassell, 1985). The use of metaphors in medicine has been recognized to have particularly important transformative powers over patients – the power to heal as well as the power to do violence (Fleishman 1999; Bedell et al. 2004).

The untrained listener may, when faced with a series of seemingly unrelated utterances in a conversation, conclude that the speaker is nonsensical and therefore dismiss the speaker as illogical and not to be heeded. We believe, however, that all non-psychotic human conversations are logical. Not conforming to a simple definition of logic, that is, connecting a series of premises to arrive at a conclusion, does not mean that the speaker lacks an underlying belief system or explanatory model – they are for the attentive listener to discover.

The concept of open-mindedness implies that the listener is attempting to bring to awareness, and to hold in check, his or her own perceptual, cognitive and emotional filters. It is an attempt, admittedly difficult and likely unachievable in full, to create an opportunity whereby the speaker's utterances can be heard and apprehended in an unedited and untarnished manner. This is immediately balanced by the need to be actively self-reflective: that is, to be aware of the waves of meanings that are generated and embedded in any clinical encounter and to be poised to respond and adjust to them. This accommodation, between being a recipient of information and a fully engaged dialogic partner, is a crucial aspect of attentive listening. The thoughts and emotions that are formed in the listener may be referred to as the 'inner voice'. The attentive listener must be able to swing from the external voice (i.e. speaker) to that inner voice – from one pole to the other (Jackson 1992). The responsive interlocutor will become aware of the inferences that flood in and out of the inner voice and will attempt to direct the conversation so that it is in service of healing. Kleinman describes some of the qualities of the inner voice as a 'healer's voice' (Kleinman 1988). In describing the apparatus necessary to accomplish this balancing act, the psychoanalyst Theodor Reik borrowed Nietzsche's concept of the 'third ear' – the ear that can receive those inaudible things that are recursive to and from patients. It is also important to underline that to move appropriately from outer to inner voice is not as simple as giving each equal 'air time', viz. each taking a turn.

Fleishman describes another aspect of the internally directed speech that is an inherent part of listening and of dialogue:

In every verbal interaction we unconsciously create a model of the knowledge state of our addressee(s). Cooperative communication involves 'recipient-designing' what we say in order to accommodate that knowledge state. By 'recipient-designing' I mean tailoring what we say and how we say it to match what we assume to be the level of understanding or sophistication of our addressee(s) with regard to the

Interpretation cannot be purged from listening; on the contrary, we consider that the student must be guided to recognize it for what it is, in other words, to understand 'reflective inference'. The inclusion of 'self-aware interpretation' as an essential aspect of listening has been captured with the term 'auding' – it has been defined as 'the process of hearing, listening to, recognizing, and interpreting the spoken language' (Toussaint 1960). The term is, however, not commonly used.

Attentive listening can accomplish the following:
reveal the personhood and concerns of the speaker (i.e. patient); produce diagnostically relevant data;
assist in healing

Listening is a skill unmatched in the capacity to elicit relevant clinical information. The attentive physician can better decipher and understand the point of the patient's story or narrative and thence, generate tentative hypotheses regarding what ails the patient. Their joint interpretation will point the way to future action. Listening can be effective in revealing the personhood of the patient, particularly if the listener is attentive to word choice and paralanguage. This specific clinical skill can lead to an understanding of a patient's concept of health and illness; his or her explanations for a particular sickness; and his or her priorities, values, hopes and fears. Many patients have declared that being listened to is part of the healing process. In a recent study conducted during the development phase of the physicianship curriculum and aimed at elucidating patients' perspectives on physician roles, one interviewed patient noted, '...sometimes listening to a person will cure half of [one's] problems.' (Boudreau et al. 2008).

Attentive listening is not a neutral act – it can have positive and negative impact on the patient, the physician and their relationship

As noted above, listening can be harnessed for and channeled to treatment. If done poorly, however, the consequences can be pernicious and result in wounding. 'Half-listening' can disenfranchise the patient. 'Distracted listening' can result in false leads for the physician and can reflect an imperviousness to patient concerns, at least, it may be so interpreted by the patient. 'Selective listening' can infantilize or frustrate the patient. Any of these can damage the therapeutic alliance.

Attentive listening requires the formation of new habits

In normal conversation there is a tendency to consider listening as automatic. In 'naïve' listening, people hear what is spoken and immediately project on the utterance their own meanings. This is a common 'road block' to attentive listening. Since there is much resistance to attentive listening, medical teachers often comment that, 'it [active listening] is characterized more by what is not done than by what is done'

aware of and attempt to overcome bad habits; these include things such as interruptions, hasty reassurances and premature advising, insufficient use of open-ended questions, and discomfort with silence or long pauses.

Illustrating the principles

We now provide a sample of activities and tasks designed to teach these core principles to first year medical students.

The fact that attentive listening is not merely sensory is illustrated using a musical analogy. We show students a musical score of a piano sonata by Domenico Scarlatti (e.g. K 380. L 23) while listening to two different recorded interpretations. The leap, from a language apprehended visually on the page to one received aurally, evokes the rich tapestry symbolizing the richness and communicative weight of the active performance compared with the written text. It becomes obvious to students that, though the written notes are identical, the performers' (alias speakers) expressions are uniquely theirs. The pianists make the piece their own through their choice of instrument, their own lived experience and the personal meanings with which the notes become coloured. This permits a useful lesson to the importance of paralanguage and patient's personhood expressed through the clinical narrative. In the case of a musical performance, just as in any communicative act, the listener's interpretation and judgment are an inherent part of the phenomenon.

Another exercise used in our teaching modules asks students to read a transcript of a patient's narrative and then to try to represent the voice of that patient. The student who is assigned the task of doing the role play is given guidance as to which features to evoke. The following are examples of directions given to 'student-speakers': 'Speak slowly and softly using regular pauses that seem deliberate and considered.' 'In a section, that is left blank, the patient needs to describe the cough and sputum; fill in that blank with a few sentences using a language that is evocative, affected and picturesque.' 'When you speak as if you were this patient, do so as if you were an uneducated and/or impoverished person.' 'In your speech, show that you are perplexed, unsure and worried.' Since students are required to complete these tasks in teams, several versions of the patient's speech are produced; the 'student-listeners' are required to describe and compare these. Tentative inferences are sought. Finally, an audio of the patient's voice – the authentic one – is played. Through such exercises, the importance of the listener in the triad of speaker/utterance/listener is made apparent.

Listening attentively to utterance involves focusing on word choice and paralanguage. It is tackled through extensive use of recordings of actual patient-doctor encounters. In the introductory sessions, we purposely use only the audio portion of the interviews because we believe that seeing the speaker distracts from the task at hand – listening attentively. Although this approach results in a loss of contextual information, we feel that it invests the spoken language with

The importance of word choice and its potential to reveal the speaker's relationship to the illness is seen in the following text:

It seems like, ah, they feel that people that have leukemia have been tired all their life or suffering with anemia or something similar, which was not the case whatsoever. I seemed healthy for four-four and a half-years and, ah, I would say that this is another thing no one seems to know – whether you have this long before it shows up, or whether you just got it and, ah, it shows.

One wonders how the patient could be speaking about her own fatal disease in what seems like a casual manner. She uses the first person pronoun when speaking about health but changes to the third person when referring to ill-health. This distancing mechanism is called the pronoun shift. It is used frequently by patients and, if recognized, can reveal significant information about the speaker. In the example above, the more distant stance indicates a kind of denial.

With respect to teaching paralinguage we have found it useful to equip students with a framework and a glossary of descriptive terms. A simplified version of it is presented in Table 1. We have experimented with making selected features of paralinguage, namely pause to speech ratio and variability in volume, graphically visible to students. We created speech waveforms using an audio editing software program (Sound Forge 9, Professional Digital Audio Production, Sony) and

have found these be effective teaching aids. An example is presented in Figure 1; it demonstrates the variation in the evolution in the acoustic shape of the speech of a patient with clinical depression.

We illustrate the fact that all non-psychotic human conversation is logical by providing examples of apparently chaotic utterances (i.e. where the premises are presented in a seemingly random manner). The following excerpt from a patient interview has been used to teach this point:

Uh, I want to try and sort – I think I have to – I am separated from my husband and have been for about three years and I've got four kids to raise, three – three are now at [name of school]. I haven't been to an internist or a general practitioner in I can't remember how many years. When the kids are sick, I go and see [name of physician]. When we have emergencies, we go to various specialists. Uh, I think I have to go into therapy. Um, probably... I have mixed feelings about it. Um, but I'd like to sort out, if I possibly can, um, how much of it is physical. Um, I checked with my mother, for instance, you know, – I'm forty-five. My mother has had – gone through a ne – nervous breakdown in her thirties. My father was in [specific business] and there was – you know, etcetera, etcetera. Um, I'm an only child, um... my father died when I was twelve, um... But, I – I checked with her about, uh, what, when and how she went through menopause. I've been – I've been through, you know. I got – I got my check-ups. I think the last time I went was about four months ago. I thought they routinely took an estrogen level thing. Um, I had regular periods, every four weeks. Um, but I've been going for the last – since late last spring.

Table 1a. Verbal-paralinguage.	
Feature	Examples of descriptive terms
Speech rate	slow, leisurely, hurried, deliberate, indolent, rapid, etc.
Pause to speech rate ratio	rhythmic, staccato, stuttering, flowing, halting, babbling, etc.
Tone of voice quality	nasal, flat, monotone, piercing, unctuous, gruff, mechanical, musical, infantile, emphatic, strained, choked, husky, etc.
Pitch	high, medium, low
Volume	loud, soft, quiet, even, variable
Articulation	precise, slurred, suggestive of specific dialects

Table 1b. Verbal-word.	
Feature	Examples of descriptive terms
Choice of words	precise, meticulous, pedantic, deliberate, intellectual, poetic, exaggerated, theatrical, formal, colorful, chaotic, laborious, etc.
Sentence construction	elaborate, simple, pedantic, awkward, etc.
Logic	orderly, consistent, complicated (i.e. containing multiple premises in a single utterance), contradictory (i.e. containing premises that preclude each other), ambivalent, magical, etc.

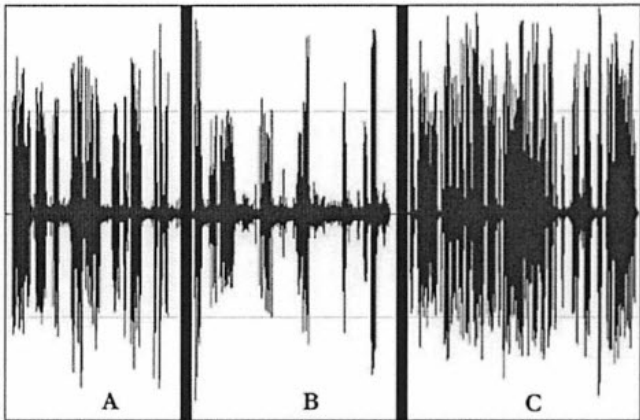


Figure 1. Example of a waveform generated by Sound Forge. The x-axis represents time and the y-axis represents sound volume. In segment A, the patient was clinically depressed; the speech slow and monotone i.e. marked by little variation in volume and with pauses that were longer than normal. In segment B, the patient was extremely depressed; the pause to speech ratio was very pronounced and the volume of utterances often barely audible. Following treatment, the patient's speech became very animated; the volume was

	Premises	Patient's utterances
#1	The problem is hormonal, metabolic or menopausal.	<ul style="list-style-type: none"> I lost fifty pounds last spring – I've got another twenty-five to go. Something changed in my metabolism, though. Um, I'm not able to absolutely control my eating; I find that I can't drink very much. ... but I'm going hot and cold all the time. Um, I checked with my mother. But I – I checked with her about, ah, what, when, and how she went through menopause. Um, I had regular periods, every four weeks. I thought they routinely took an estrogen level thing.
#2	This is why I am here now; there is no regular doctor.	<ul style="list-style-type: none"> I haven't been to an internist or general practitioner in – I can't remember how many years. When the kids are sick, we go and see [name of physician]. When we have emergencies, we go to various specialists.
#3	The problem is emotional.	<ul style="list-style-type: none"> I've been – I've been through, you know. My mother has had – gone through a ne – nervous breakdown in her thirties. My father was in [specific business] and there was – you know, etcetera, etcetera. Um, my father died when I was twelve. Um, I'm an only child. I am separated from my husband and have been for about three years – and I've got four kids to raise, three – three are now at [name of school]. Um... I have tried Valium.
Conclusion		<ul style="list-style-type: none"> I think I have to go into therapy, um, probably... and I'm trying – I have mixed feelings about it. Um, but I'd like to sort out, if I possibly can, um, how much of it is physical.

Figure 2. Text of a patient's speech, with utterances rearranged, in order to reveal premises and logic.

I lost fifty pounds last spring; I've got another twenty-five to go. Something changed in my metabolism though. Uh, I'm not able to absolutely control my eating; I find that I can't drink very much. Um, I have tried Valium but I'm going hot and cold all the time.

Students are asked to identify the premises and rearrange them so the patient's flow of logic emerges. In diminishing the apparent chaos, (often interpreted as 'nuttiness' by the untrained listener), we help understand the story and bolster a sense of respect for the patient. Our response to the above task is presented in Figure 2.

The teaching strategies described above can all be deployed in amphitheaters or small group rooms, that is, in pre-clinical contexts. It is important to emphasize, however, that all of the principles, particularly those that relate to the impact on patients, are best taught, role-modeled and assessed during actual patient encounters.

Conclusion

We have identified a set of core principles that describe attentive listening and have applied these to the design of specific strategies for its teaching. The preparation of medical students to be attentive listeners, as well as keen observers, has been motivated by two complementary aims. The first is a desire to equip students with the skills of a clinical method deemed to be suitable in advancing the basic goal of physicianship, that is, redirection of the physician's gaze from disease to the sick person. Acquiring an ability to see closely and discerningly and to listen fully and authentically, is a requisite in achieving this objective. The second is to contribute to the transformation which students experience in medical school. Much has been written in critical pedagogies about the transformative processes. A recently conducted study on the education of American clergy states: 'At the center of this pedagogy is the idea of formation: the recognition that teaching and learning are about much

in the formative sense is a process by which the student becomes a certain kind of thinking, feeling and acting being' (Foster et al. 2006). This description is entirely applicable to medicine, and we adapt it as follows: 'Learning in the formative sense is a process by which the student becomes a certain kind of thinking, feeling, seeing, listening and acting being.' It became evident to us, in developing these principles and examples, that attentive listening in the clinical domain has such unique features that it may warrant the specific term, 'clinical listening'.

The new course in teaching attentive listening has been well received by students although we cannot yet provide evidence as to its efficacy since we need to develop validated tools with which to reliably assess performance. Learner feedback has provided us with a critique that we find particularly fascinating. Some students have argued that it would be more effective to teach listening after they have been taught the medical interview and specific techniques in communication skills. Our initial response to this was to consider it akin to 'putting the cart before the horse.' Nevertheless, the issue of sequencing is undoubtedly important. Clinical educators generally believe (even if erroneously so in certain instances) that skills teaching must follow a certain order and that the acquisition of simple skills should precede the complex. While we assumed that learning how to listen would be easier than learning to conduct a complete medical interview with patients, it may actually be the reverse. We may need to reinforce these skills, developed in the first year, with a complementary approach later during clinical rotations, by identifying errors in listening during observed medical interviews and then exploring these errors with the students.

As with modules on teaching clinical observation, teaching listening remains a work-in-progress. We are currently focused on a narrative understanding as a necessary complement to attentive listening. We expect that students, by understanding language and narrative structure, will become more attuned to patient needs, and increasingly proud of their gradual

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