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The Structure of Patients' Presenting Concerns: Physicians' Opening Questions

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This article uses conversation analysis to develop a typology of questions that physicians use to solicit patients' problems and then tests question–format effects on patients' subsequent problem presentations. Data are videotapes of 302 primary-, acute-, and outpatient-care visits involving 77 physicians in 41 urban and rural clinics, as well as pre- and postvisit questionnaires. The most frequent question formats were general inquiries (62%; e.g., "What can I do for you today?") and requests for confirmation (27%; e.g., "I understand you're having some sinus problems today?"). Compared to confirmatory questions, general inquiries were associated with significantly longer problem presentations ($p < .0001$) that included more discrete symptoms ($p < .0001$). Physicians were more likely to use confirmatory questions in the urban setting ($p = .003$).

This article deals with the phase of primary care medical visits in which patients present their medical problems to physicians, hereafter referred to as *problem presentation.* This phase is normally both initiated by physicians with questions (e.g., "What can I do for you today?") and terminated by physicians with questions that initiate the next phase, *information gathering* (e.g., "When did all this start?"; Beckman & Frankel, 1984; Heritage & Robinson, in press; Robinson, 2003).

The significance of problem presentation has been noted by a number of researchers and can be framed by Eisenberg's (1977) observation that, whereas "physicians diagnose and treat 'diseases,'" construed in terms of the biomedical model of disease, "patients suffer 'illnesses'" manifested in the experience of impaired well-being (p. 11; see also Cassell, 1976; Engel, 1977; Kleinman, 1980; Mishler, 1984). Problem presentation is the only phase of medical visits in which patients are systematically given institutional license to describe their illness in their own terms and in pursuit of their own agendas. Patients avail themselves of this opportunity in diverse ways, varying from presenting biomedical symptoms and candidate diagnoses to extensive illness explanations, in formats varying from single sentences to lengthy narratives (Heritage & Robinson, 2006; Peppiatt, 1992; Stivers, 2002). Regardless of how patients exercise these choices, once physicians initiate the next formal phase, information gathering (i.e., history taking and physical examination), patients tend to lose the interactional initiative and become constrained by a course of physician questioning that is physician-centered and driven by a more medical–technical agenda (Beckman & Frankel, 1984; Boyd & Heritage, 2006; Mishler 1984).

Patients' descriptions of their concerns are important for several reasons: (a) Full description of patient concerns can affect health outcomes through improved diagnosis and treatment (Arborelius, Bremberg, & Timpka, 1991; Fisher, 1991; Larsson, Säljö, & Aronson, 1987; McWhinney, 1989; Mishler, 1984; Peppiatt, 1992; Sankar, 1986; Todd, 1989); (b) patients' descriptions of their symptoms, circumstances, and feelings associated with their problems are significantly associated with reductions in patients' systolic blood pressure (Orth, Stiles, Scherwitz, Hennrikus, & Vallbona, 1987) and increases in patients' affective satisfaction (Stiles, Putnam, Wolf, & James, 1979; cf. Carter, Inui, Kukull, & Haigh, 1982; Inui, Carter, Kukull, & Haigh, 1982; Putnam,

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Stiles, Jacob, & James, 1985); and (c) patients frequently have multiple concerns, which can be biomedical, psychosocial, or both in nature (Barsky, 1981; Lipkin, Frankel, Beckman, Charon, & Fein, 1995; Stoeckle & Barsky, 1981; White, Levinson, & Roter, 1994; White, Rosson, Christensen, Hart, & Levinson, 1997). More extensive problem presentation can bring these concerns, together with associated illness theories and affective sentiments, to a point where they can be addressed by physicians. The importance of examining patients' problem presentations is highlighted by the recurrent finding that they tend to be brief, and that such brevity is at least partially a result of physicians' interventions (Beckman & Frankel, 1984; Beckman, Frankel, & Darnley, 1985; Marvel, Epstein, Flowers, & Beckman, 1999).

The fact that patients' problem presentations are normally boundaried by physicians' questions raises issues about the ways in which physicians' behaviors affect the interactional "space" or "slot" within which patients present their problems. Therefore, we can ask the following: (a) How does the form of physicians' initiating questions affect the substance of patients' problem presentations, and (b) how is the initiation of information gathering positioned relative to the "completion" of patients' problem presentations? This article deals with the first of these questions. To do so, we develop a typology of the questions physicians ordinarily use to initiate problem presentation, examine the frequency of their deployment, and consider the effects of different question types on the extent of patients' problem presentations.

THE CONTEXT OF PROBLEM PRESENTATION

The questions with which physicians initiate problem presentation are often shaped by preceding interactions. In the United States, patients are ordinarily seen by nurses or medical assistants (MAs) prior to physicians. MAs record patients' vital signs, frequently solicit presenting concerns, and sometimes take brief problem histories. This information, entered with varying degrees of completeness into patients' charts or computer records, is normally available to physicians prior to their interactions with patients.

This context complicates what would otherwise be a straightforward process of problem solicitation. Physicians, who may be somewhat cognizant of patients' problems, must decide how much of that knowledge to display when soliciting patients' accounts of them. Patients, who may assume that their previously disclosed information has been made available to physicians, must decide how much repetition is appropriate when representing their problems. Underlying these concerns are interactional norms (for a review, see Goffman, 1971; Heritage, 1984b) that sanction persons who convey information to recipients who already have knowledge of it (Maynard 2003; Terasaki 2004). Physicians labor under a reciprocal of this norm, which sanctions persons who ask for information when they are known to already have it.

For example, in Extract 1 the physician works to relieve the patient of whatever reservations she may have about repeating possibly known "news"; this is especially clear at lines 12 and 13 and in the design of the physician's initiating question (a->):

Extract 1: [P3:51:07][1]

```
01      DOC: .hhhhhhh A::lrighty. (.) m=well they were
02 *->       talkin'- (0.2) thuh nurses told me a little
03 *->       bit about [your (.) ] p=h=ro:blem,
04      PAT:              [Yeah.    ]
05           (.)
06      DOC: .hhh Doesn't sound like fun.
07      PAT: No:.
08      DOC: °.hhhhhhhhhh° (d)- Is 'is something you had
09           befo:re?=[or is] it bran' new [problem   ]
10      PAT:              [No  ]              [J'st some:]thin'
11      PAT: ne:w.
12 a-> DOC: °Hm:° (0.2) .mtch=.h tell me a little bit more
13 a->       about it. they wrote down [a couple a] notes but uh
14      PAT:                                [n='Kay.   ]
15      PAT: We:ll, (.) 't started like Wednesday. I started
16           like f- feeling a pull in my ne:ck=h
17      DOC: Mm hm,
```

By the same token, in Extract 2, although the physician initiates problem presentation with a question that communicates a lack of knowledge about the patient's concern (a->; Robinson, 2006), the patient nonetheless begins with a disclaimer indicating that she will be repeating herself (*->). In this way, she struggles with the possibility that her problem presentation may not be "news" to the physician:

Extract 2: [P3:123:18]

```
01 a-> DOC: What brings you here.=
02 *-> PAT: =Well, (.) uhm, (0.5) as I was- °I guess I'll just explain
03 *->      it like I was explainin' to the nurse° uhm, (1.0) I kept
04          ignoring it because I thought well, (.) I have arthritis
05          in my spine, …
```

As these examples suggest, the repetition of preexisting knowledge of a problem is a lively consideration for both physicians and patients. It is one that can exert a significant influence on how physicians design their solicitations of patients' problems and hence on the fashion in which patients' presentations are constructed.

[1]The transcription conventions used in this article are described in Ochs, Schegloff, and Thompson (1996). Online instructional resources for the use of transcription symbols can be found at: http://www.sscnet.ucla.edu/soc/faculty/schegloff/TranscriptionProject/index.html and http://www.paultenhave.nl/resource.htm All names are psuedonyms.

QUESTION DESIGN

The notion that physicians' questions affect the substance of patients' problem presentations is based on two fundamental principles of interaction. The first principle is that of *conditional relevance* (Schegloff, 1968, 1972; Schegloff & Sacks, 1973). It is by virtue of this principle that questions set agendas for responses (Boyd & Heritage, 2006; Heritage, 2002; Mishler, 1984; Raymond, 2003; Stivers & Heritage, 2001). It is widely understood that the format of questions—including at least their grammatical construction (e.g., yes–no vs. wh-questions), the actions they are designed to implement (e.g., a request for information, an offer, etc.) and their associated preference organizations for responses—constrains the format of responses and sets the terms for what will constitute a minimally "complete" answer (Raymond, 2003; Schegloff, in press). For example, in Extract 3, the question format, "What's goin' ↑on↓ today," (a->) constrains the patient's response to the formulation of currently experienced problems:

Extract 3: [P3:118–17]

01 a-> DOC: What's goin' ↑on↓ today. hhhh=
02 b-> PAT: =Uh: (.) just got=it in this u-=thro:at, (continues)

The patient's initial present-tense response ("just got=it … ") displays her understanding of the physician's question as targeting a medical symptom.

The second principle is that of *turn taking.* Physician–patient interaction is organized by the turn-taking rules for ordinary conversation (Sacks, Schegloff, & Jefferson, 1974; for a review, see Robinson, 2001). This turn-taking system provides that, in principle, after a respondent produces a possibly complete answer to a question, the questioner has the right to the floor. In the context of problem presentation, after patients provide a response, physicians can opt to terminate the phase of problem presentation by initiating information gathering. Therefore, in Extract 4, the physician treats the patient's initial, one-sentence response as complete and proceeds to initiate information gathering, specifically *history taking* (HT>):

Extract 4: [SG:804:1]

01 a-> DOC: What=you up to:.=h
02 (.)
03 b-> PAT: I've gotta bad foot that I can't- (.) get well.
04 (0.2)
05 HT> DOC: Which part.
06 PAT: >Okay.< (0.2) about five weeks ago I went to
07 Disneyland an' I wore uh pair=a sandals
08 that weren't verysupportive … . (continues)

In this case, the physician's move is resisted by the patient (line 6): Her turn is both overtly nonresponsive to the question (with "Okay") and pursues a narrative agenda that, as she retroactively provides, was interrupted by the physician's question.

Taken together, these two principles represent resources through which physicians can exert agenda-based constraints on the substance and extent of patients' responses. Although, as Extract 4 makes clear, patients have resources with which to resist the agendas of physicians' questions and the norms of turn allocation, the fact remains that these constraints are present and that patients may need to resist them if they are to present their own concerns in their own terms.

DATA AND METHOD

The data for this article were 302 randomly selected visits between patients with acute medical problems (as opposed chronic-routine, follow-up, or general physical examination) seeing primary care physicians (i.e., family practice or internal medicine) in community-based clinics. Patients were consecutively recruited in 41 clinics with 77 participating physicians.[2] One hundred ninety-one visits were collected in urban Los Angeles, and 111 were collected in rural central Pennsylvania. All data collection was approved by university humans-subjects protection committees. Nurses admitted patients and escorted them to a private area where researchers explained the study and secured their written consent, after which patients filled out a previsit survey. Patients were then escorted to visit rooms and seen by physicians without the presence of researchers. Visits were videotaped with small cameras that were positioned so that their view could be obstructed by an examination curtain, which was drawn when patients dressed or underwent especially private examinations. After their visit, patients filled out postvisit surveys (measures are discussed later). All data were transcribed by the authors. The qualitative method used is conversation analysis (CA; for a review, see Atkinson & Heritage, 1984), particularly as it is applied to the study of institutional interaction (for a review, see Drew & Heritage, 1992; Heritage & Maynard, 2006).

ANALYSIS

Interactional Analysis

Question Types

We identified five basic types of questions used to initiate problem presentation. These types are sensitive to the two organizational dimensions of physician questioning described

[2]Visits in which patients preempted the physician's initiating question by directly proceeding to describe their problem were excluded. Also excluded were visits in which patients described their problems by physically presenting or displaying them to physicians with minimal vocalization (e.g., "Look at this"). These will be the subjects of a separate article.

earlier. The first concerns knowledge. As described previously, physicians can design their questions so as to communicate varying degrees of preexisting knowledge about patients' presenting concerns. These question designs can vary in the extent to which they invite patient elaboration of medical problems. The second organizational dimension concerns the degree of agenda-based constraint mobilized by physicians' questions. Given the constraining nature of question design described earlier, what is required of patients as an immediately relevant response? As we show in our analysis, each of the question types can be analyzed in terms of both dimensions, the choices they impose on participants, and their consequences for patients' problem presentations.

Type 1 (general inquiry) questions. Type 1 questions have three primary features: (a) Their design invites the immediate presentation of patients' medical business; (b) they are "general" in that they formulate an agnostic stance about the precise nature of patients' medical business; and hence, (c) they allow patients to present their concerns in their own terms. Type 1 questions vary in the amount of preexisting information that physicians present themselves as having. (The following list of types is not meant to be exhaustive.) First, they can be formatted so as to be entirely agnostic about the nature of patients' business, as in Extract 5:

Extract 5 [P3:25:05]

01 a-> DOC: What can I do for you today.
02 (0.5)
03 b-> PAT: We:ll- (0.4) I fe:l like (.) there's something
04 b-> wro:ng do:wn underneath here in my rib area. …

Questions like, "What can I do for you today" (a->), together with others such as, "How can I help?," "What are you here for?," and "What brings you in?," propose a "service" relationship between physician and patient. Although they make relevant the presentation of medical business generally, they are agnostic regarding the nature of such business, allowing for the possibility that patients' business might be something other than the investigation of a problem (e.g., a request for a prescription refill or work-release note).

A second common form of Type 1 question continues to index the existence of general, but unknown, medical problems, yet in addition indexes the tense of such problems. For example, in Extract 6, the physician uses the present progressive "goin' o:n." (a->) to solicit a description of a *current* medical problem:

Extract 6: [P3:118:19]

01 a-> DOC: What=in thuh world's goin' o:n.
02 (0.2)
03 b-> PAT: W'll (.) I ha:ve (.) da- ta back up ta thuh very
04 -> beginning. I think I had like an upper respiratory flu:.

Note that the patient's response (b->) begins in the present tense, "I ha:ve," and that the patient further orients to the "current" focus of the question by subsequently rebeginning her turn and projecting a move into the past tense, "ta back up ta thuh very beginning." Other Type 1 questions of this general sort include "What's happening?"; "What's up?"; and, in rare cases, "What happened?" (common for physical injuries).

Finally, Type 1 questions can index specific problems or symptoms, as in Extract 7:

Extract 7: [N:21:07]

01 a-> DOC: S:o (.) tell=me about this pain you're getting.
02 (0.4)
03 b-> PAT: It (.) it (.) I thought (at=f:)- initially it was
04 b-> uh (0.2) just my sciatica (.) acting up. …

Here, although the *tell me about X* format indicates some preexisting knowledge of the patient's problem (i.e., "pain"), the *tell me* format specifically invites the patient to describe it de novo (see also J. Coupland, Robinson, & Coupland, 1994), and in this way positions the physician as a relatively unknowing recipient.

Type 1 questions are by far the most common type of problem solicitation in our data set, representing 187 (61.9%) cases (Table 1). Because they do not constrain the content, extent, or precise form of patients' responses, Type 1 questions are compatible with any response that patients care to make, provided that it is focused on the activity that the question is understood to initiate: the presentation of medical business. As discussed

TABLE 1
Frequency of Question Types and Associated Mean Lengths of Problem Presentations

	Frequency			
Question Type	*N*	*%*	*M Length (Seconds)*	*Range (Seconds)*
1	187	61.92	27.10	1–143
2	33	10.93	15.72	1–61
3	48	15.89	8.33	1–46
4	16	5.30	17.81	3–62
5	18	5.96	10.72	2–32
Total	302	100	21.41	1–143

later, Type 1 questions engender the longest problem presentations, averaging 27.1 sec.

Type 2 (gloss for confirmation) questions. Type 2 questions request confirmation of a generalized *gloss* of patients' medical problems. In conceptualizing the notion of *glossing,* we note that there is a range of different ways that physicians can refer to, formulate, or describe patients' problems. As an interactional practice, describing is organized along a number of dimensions (Schegloff, 1972), one of which is *granularity* or "degree of resolution" (Schegloff, 2000a). That is, different descriptions "zoom in on" or "pan out from" specificity, including or excluding particular details (Jefferson, 1985). In a variety of contexts, such as story telling and announcements (Goodwin 1996; Sacks 1974; Terasaki 2004), generalized glosses project subsequent elaboration. For example, Sacks (1974) noted that story prefaces frequently include gloss-like descriptors that project their own elaboration such as the descriptor, *wonderful thing,* in the preface, "The most wonderful thing happened to me today." (This can be compared to more fine-grain announcements such as "I received a raise today.")

In contrast to Type 1 (general inquiry) questions, Type 2 questions are formatted as yes–no questions that invite (dis)confirmations as patients' immediately relevant next actions (Raymond, 2003). However, by expressing limited and generalized access to patients' problems, they also invite expansive detailing as a possible and appropriate patient response (Pomerantz, 1980). Extracts 8 and 9 exemplify this type of question, where the glosses are "uncomfortable" and "sick," respectively:

Extract 8: [P3:49:09]

```
01 a-> DOC: Sounds like you're uncomfortable.
02          (.)
03 b1>PAT:  Yeah.
04 b2>PAT:  My e:ar,=an' my- s- one side=of my throat hurt(s).
```

Extract 9: [N:17:09]

```
01 a-> DOC: So you're sick today. huh?
02 b1>PAT:  Ye:ah.
03          (.)
04 b2>PAT:  Getting a cold. losin' my vo:ice,
```

In both cases, the patients' responses are twofold. The *initial* responsive units (b1>) are confirmations (i.e., *Yeah*). Subsequently (b2>), the patients go on to expand their responses with additional units that present symptoms.

Type 2 questions imply somewhat conflicting obligations for their recipients. On the one hand, when physicians request confirmation of a gloss of patients' problems, such as "uncomfortable" or "sick," they establish the relevance of its unpacking and specification by patients. Extracts 8 and 9, in which patients go on to present current symptoms, support the observation that patients understand physicians' descriptors as glosses in search of expansion. On the other hand, because Type 2 questions embody a claim to at least preliminary knowledge of patients' problems, they simultaneously introduce a barrier to patients' problem presentations arising from the norm that sanctions repetition of known information (discussed earlier). This barrier is overt in Extract 8, where the physician's "Sounds like … " (line 1) indicates that his gloss is derived from another source (e.g., information documented by the intake nurse in the patient's medical records).

There are a number of different types of evidence for the proposal that, relative to Type 1 questions, Type 2 questions constrain both the content and extent of patients' problem presentations. First, the constraining effects of Type 2 questions are highlighted when we compare patients' problem presentations to physicians with those made earlier to nurses. Extract 9′ represents the nurse–patient interaction that preceeded Extract 9:

Extract 9′ [N:17:09]

```
01       NUR: You have a co:ld (or)
02 1-> PAT:   Congested.
03       NUR: Co:ngis- chest co:ngestion?
04       PAT: Ye:ah=a [little-]
05       NUR:         [ A:ls ]o_
06            (0.3)
07 2-> PAT:   Coughing_ (.) s[tarting  ] to cough a little b[it,
08       NUR:                [ Cough-]                    [( ) °just
09       NUR: a mome::nt,°
10            (9.5) ((nurse writing))
11       NUR: °A::nd then a:° co::ugh.
12       PAT: Ye:ah. just starting.
13       NUR: (It just a) sta:rting.
14       PAT: Yeah.
15            (.)
16       NUR: [How ] 'bout thuh  [sore throat? ]
17 3-> PAT:   [(My) ]           [voice (      ] ).
18       NUR: Ye:ah,  [so   ]
19 4-> PAT:          [Uh:  ]:m sore throat once in a while.
```

During the nurse's intake visit, the patient reported four symptoms: "Congested" (1->), "Coughing" (2->), something about his "voice" (most of which is inaudible; 3->), and "sore throat" (4->). Comparing Extract 9′ to the previous Extract 9, we make four observations: First, the physician's formulation "sick"—from his Type 2 question, "So you're sick today. huh?" (Extract 9, line 1)—is a gloss; the patient did not report *sick* to the nurse, nor did the nurse document *sick* in the records (which we also collected).[3] Second, after the patient confirms (Extract 9, line 2), he continues with "Getting a cold" (line 4), which is itself a gloss of his symptoms; he did not report *cold* to the nurse. Therefore, the patient's initial

[3]The nurse's chart entry read: "Cold—chest congestion/cough/sore throat (nighttime) for 4 days."

continuation is with an additional gloss. Third, the patient's subsequent continuation presents only one of his symptoms: "losin' my vo:ice" (Extract 9, line 4); relative to his presentation in Extract 9′, he withholds *congestion, coughing,* and *sore throat.* Fourth, the *voice* symptom is the only one that was not fully articulated to the nurse; it was overlapped (Extract 9′, lines 16–17), and thus potentially not registered by the nurse. Therefore, in response to the physician's Type 2 question, the patient can be described as presenting only symptoms potentially not registered or documented by the nurse.

In addition, patients may be reluctant to respond to glosses with symptomatic details for fear of repetition. In Extract 10, the physician's Type 2 question is, "Sounds like you haven't been feelin'=so spiffy?" (a1>), where the gloss is "(not) so spiffy":

Extract 10 [P3:52:07]

01	a1>	DOC:	Sounds like you haven't been feelin'=so spiffy?
02	b1>	PAT:	No::.
03			(1.0) ((doctor pulls pen out of shirt pocket))
04			(0.8) ((doctor begins to write))
05		PAT:	Thought=it was goin' awa:y, an' it come back over
06			thuh wee:kend.
07		DOC:	Uh huh_
08			(.)
09		PAT:	Jill's like you got=a sinus infection a year ago.
10			(.) it's got=a be:_=
11		DOC:	=(Uhh/Oh). How's Jill doin' these days,
			((24 sec omitted; talk about patient's wife and family))
12	a2>	DOC:	hhhhhhh A::lrighty. Tell me everything.
13			(0.8)
14		PAT:	Uh (0.4) like I to[ld her.]
15		DOC:	[She- (.)] you told (thuh nurse)
16			[all (this)] stuff. Ye: [ah.]
17		PAT:	[Ye:ah.] [·hh]hh It=e- seemed like
18		PAT:	like I had=a little sore throat Sunday night,
19			(.) M:onday I woke up, went ta wo:rk, …

The patient's initial response (b1>) is a confirmation: "No::." At lines 3 and 4 there ensues a lengthy 1.8-sec silence wherein the patient continues to gaze at the physician, who begins to write in the records. It is notable that, in his subsequent continuation (lines 5, 6, 9, & 10), the patient refers to his problem with a locally subsequent reference form "it" (Schegloff, 1996b), which displays his understanding that the physician already has knowledge of his problem. Moreover, although the patient's " … it come back over thuh wee:kend" references both a problem and a general timeframe, it eschews a symptomological description of the problem. Finally, although the patient does go on to report his wife's diagnostic speculation of "sinus infection" (lines 9–10), this appears as more designed to support the legitimacy of his medical visit than to offer symptomatic description (Heritage & Robinson, 2006).[4]

The observation that the patient does not present his problem at lines 5 through 10 is brought into relief when we examine subsequent talk. At line 12, the physician redirects the topic of the interaction by inquiring about the patient's wife, which lasts for approximately 24 sec. However, the physician ultimately shifts back to problem presentation with, "·hhhhhhh A::lrighty. Tell me everything" (a2>). This is a Type 1 question that, in line with our earlier argument, invites the presentation of a problem. Moreover, although interdicted by the physician at lines 15 through 16, the patient's first complete responsive unit performs the action of presenting a symptom history: "Uh (0.4) like I told her. … It=e-seemed like I had=a little sore throat Sunday night" (lines 13–18).[5] In addition, the physician's, "Tell me everything," tacitly acknowledges that the patient's earlier talk did not accomplish problem presentation. Finally, that the physician shifts from a Type 2 question (a1>) to a Type 1 question (a2>), and that each question is responded to (and thus understood) differently by the patient, is further evidence that Type 1 and Type 2 questions set different agendas for subsequent patient response.

Our data contain considerable support for the claim that physicians themselves do not orient to Type 2 questions as the ideal means of soliciting a full problem presentation. For example, see Extract 11:

Extract 11 [P3:27:04]

01	a1>	DOC:	I understand you're having s'm sinus
02	a1>		problems t[oday.]
03	b1>	PAT:	[#Ye]:a[h.#]
04	a2>	DOC:	[W]hat's [goin' on.
05		PAT:	[I-
06		PAT:	Uh::m I just have terrible sinus headaches.

[4]Space prevents a full defense of this claim, and the interactional organization and effects of self-diagnosis are the topic of another article. However, as the following example illustrates, patients self-diagnoses are routinely treated as summaries in lieu of problem presentation and are followed by history taking:

[P3:19:04]

01	a->	DOC:	W'l what brings ya in today.
02	b->	PAT:	I:, (.) j's think I have a kidney infectio[n.]
03		DOC:	[U]h oh:,
04			(.)
05	HX>	DOC:	When did this start.
06			(0.4)
07		PAT:	Y're gunna yell at me but like- (0.2) beginning of july::,

[5]The physician's interdiction appears driven by a desire to demonstrate that he understands that the patient's reference to "her" is the practice medical assistant rather than the patient's wife, who was topicalized in the preceding talk.

The physician begins by asking a Type 2 question (a1>), and the patient responds with a confirmation (b1>). However, prior to the patient completing the confirmation, the physician asks a Type 1 question (a2>). That the physician does not wait for a problem presentation, and instead resolicits such a presentation with a Type 1 question, is evidence that the physician orients to the Type 2 question as a less-effective means of soliciting a problem presentation.

The constraining effects of Type 2 questions can form part of a procedure in which problem presentation is minimized or eliminated, as seen in Extract 12:

Extract 12: [P3:60:10]

01 a-> DOC: You're having knee problems since Ju::ne.
02 b-> PAT: Yes.
03 HT> DOC: Okay what have you done for that. (.) since then.

Immediately after the patient confirms with "Yes" (b->), the physician shifts out of problem presentation into history taking (HT>), thus further reducing the opportunity for the patient to expand on her problem in her own terms.

As we have suggested, physicians' use of Type 2 questions can be at least partially explained by a related conversational norm: Do not ask others for information that you are already presumed to know (see Terasaki, 2004). Insofar as (a) patients present their problems to MAs, who enter information into the patients' charts; (b) physicians are (at least professionally) accountable for having read chart notes prior to visits; and (c) physicians presume that because patients presume that physicians know such information, there will be a general pressure on physicians to use opening questions that display their knowledge of patients' problems. This pressure is exemplified in Extract 13:

Extract 13: [P3:18:04]

01 *-> DOC: W'll what brings you in today. Thuh
02 nurse [wrote down] that you're havin'
03 PAT: [We:ll]
04 DOC: some trouble with your [ha:ir.]
05 PAT: [Yea] :h.

The Type 1 question, "W'l' what brings you in today" (*->), gives the patient the interactional right and obligation to answer. According to the rules for turn taking, on completing this question, the physician should stop speaking and allow the patient to respond (Sacks et al., 1974). However, before the patient answers, the physician continues with a Type 2 question, "thuh nurse wrote down that you're havin' some trouble with your ha:ir" (lines 2 and 4). Here, the physician replaces her original Type 1 question with a Type 2 question, and thereby attenuates her claim to be unaware of the patient's problem.

To summarize, Type 2 questions are requests for confirmation of glosses of patients' problems that simultaneously make immediately relevant confirmations (vs. problem presentations) and indicate prior knowledge about patients' problems. Due to the norm, *do not inform others about things that you presume they already know* (Terasaki, 2004), Type 2 questions constrain patients away from presenting their problems to already-knowing physicians. However, because the item to be (dis)confirmed is a vaguely formulated gloss, these questions can permit or license patient-initiated expansions without requiring them. In such cases, however, a patient will undertake an expansion in a context in which the physician has already indicated a degree of familiarity with the complaint; this consideration may limit the expansion that the patient decides to undertake. Type 2 questions represented 33 (10.9%) cases and engendered presentations averaging 15.72 sec (Table 1).

Type 3 (symptom[s] for confirmation) questions. Similar to Type 2 questions, Type 3 questions are formatted so as to make (dis)confirmation the appropriate next action. However, whereas Type 2 questions request confirmation of a gloss of patients' problems, Type 3 questions request confirmation of *concrete symptoms.* A frequent feature of Type 3 questions is the verbatim use of terms recorded by nurses in patients' records, which are often those of patients themselves. Unlike Type 2 questions, which imply a claim to knowledge of patients' specific problems, Type 3 questions display such knowledge. Therefore, they more strongly constrain patients away from elaborations that would involve repetitions to physicians who have presented themselves to be already knowledgeable. For example, see Extracts 14 and 15:

Extract 14: [N:10:04]

01 a-> DOC: Okay so this time last for three da:ys,
02 a-> ·hhh an' you're having body a:ches,
03 PAT: Y [es:::]
04 a-> DOC: [You('re) feelin' we:ak,] ·hh uhm any other
05 a-> symptoms, right no:w=
06 b-> PAT: =N:o:. [(It's) just that I woke-]
07 HT> DOC: [Fe:ver::_]
08 PAT: N:o uh no fever.

Extract 15: [N:10:01]

01 a-> DOC: ·tch Alright. so having headache, an' sore thro:at_ ·hh
02 a-> and cough with phle:gm for five da:ys?
03 b-> PAT: [Mm hm[:,]
04 HT> DOC: [·hhh [Uh]:m- Are you >bringing up<
05 HT> (.) >uh- you know when< you
06 HT> say [you bring up thuh ph [le:gm]
07 PAT: [O::range [bro:wn] an'=a (go:ld)
08 tannish, ye:ah.

In each of these cases, (a) physicians produce their Type 3 questions while gazing at (inferably reading) the nurse's chart notes; (b) the questions request confirmation of con-

crete symptomological details, including "last for three da:ys," "body a:ches," and "feelin' we:ak" (Extract 14, lines 1–4), and "heada:che," "sore thro:at," and "cough with phle:gm for five da:ys" (Extract 15, lines 1–2); (c) patients understand these as requests for confirmation by confirming, "Yes:::" (Extract 14, line 3) and "Mm hm:" (Extract 15, line 3); and (d) immediately on completion of patients' confirmations, physicians shift out of problem presentation and into information gathering, including another request for confirmation, "Fe:ver::_" (Extract 14, line 7), and a yes–no question, "Are you >bringing up< … " (Extract 15, lines 4–6).

The last observation supports the claim that physicians treat patients' confirmations of Type 3 questions as complete, sufficient answers. Stated alternatively, Type 3 questions are summaries of patients' problem presentations and are not designed to (re)solicit such presentations. In fact, there is evidence that Type 3 questions are designed to be relatively exhaustive of patients' already-reported symptom. For example, in Extract 14, the physician completes her turn with, "any other symptoms, right no:w" (lines 4–5). This question contains the negative-polarity item "any," which embodies a presumption of a *no* answer (Boyd & Heritage, 2006; Heritage, 2002; Stivers & Heritage, 2001) and thus displays the physician's understanding that there is nothing more to present. More restricted than Type 2 questions, Type 3 questions can also lead to the curtailment of or, as in Extracts 14 and 15, the complete abrogation of the problem presentation phase of the medical visit.

As with Type 2 questions, physicians do not appear to orient to Type 3 questions as solicitations of problem presentations, *per se*. For example, see Extract 16:

Extract 16: [N:19:06]

```
01 a1> DOC:  You slipped an' fell, four weeks ago?=
02 b-> PAT:  =Ye:ah.
03           (.)
04      PAT:  >It w'[s::<
05 a2> DOC:          [What happ[ened.
06      PAT:                    [>°a little over four weeks
07      PAT:  ago.<° uh::m (0.4) I: was >walkin' down< thuh
08            sta:irs, a::n' ·hhh I fe:ll_ …
```

The physician's Type 3 question (a1>) is again produced while gazing at (reading) the medical records. After the patient confirms with, "Ye:ah," (b->), and after a brief gap of silence (line 3), the patient begins to produce another responsive unit, ">It w's::<" (line 4). However, the physician interrupts the patient—versus allowing the patient to speak to possible completion (see Jefferson 2004; Schegloff, 2000b)—by asking a Type 1 question, "What happened" (a2>). When the physician begins to speak, the patient is not projectably complete (Jefferson, 1984); that is, after only, ">It w' … ," it is not possible for the physician to know where the patient is "going" or what the patient is "doing" with this unit of talk, including the possibility that the patient is beginning to present his or her problem. That the physician's "What happened" (line 5) is specifically designed to solicit a problem presentation, and that it is interruptive of a nonprojectably complete unit of talk, is strong evidence that the physician orients to his initial Type 3 question as not having been designed to solicit a problem presentation. The physician turns out to have been correct. That is, the patient's second responsive unit, ">It w's::< … >°a little over four weeks ago<°" (lines 4–6), is not part of a problem presentation but rather a correction of the physician's time estimate in his original Type 3 question (a1>). This supports the claim that the patient also did not understand the Type 3 question as a solicitation of a problem presentation, per se.

Compared to Type 1 and Type 2 questions, Type 3 questions are the least enabling of patients' problem presentations. As yes–no questions, they require (dis)confirmation as an immediate next action (Raymond, 2003). Because the material presented for confirmation incorporates specific symptoms from the patient's chart, rather than vaguely formulated glosses of those symptoms (as with Type 2 questions), these questions do not provide a hospitable environment for elaboration. In this context, elaborations must necessarily be produced at the patient's initiative and, as in the last example, in competition with the physician's presumed right to the floor. Type 3 questions represented 48 (15.9%) cases (almost 50% more than Type 2) and engendered presentations averaging 8.33 sec (almost 50% less than Type 2; see Table 1). One-word answers to Type 3 questions were common (29%), and 60% of responses were 5 sec or less.

Type 4 (How are you?) questions. The defining feature of Type 4 questions is that they are formatted to solicit general evaluations rather than problem presentations as the immediate object of response. Examples are, "How are you?," "How are you doing?," and "How are you feeling?" Robinson (1999) demonstrated that patients understand Type 4 questions differently depending on whether they are positioned prior to, or following, the completion of the opening phase of visits; these include greetings, identifying patients, embodying readiness, reading records, and so forth (J. Coupland et al., 1994; Heath, 1981; Robinson, 1998). When positioned after the completion of the opening phase, Type 4 questions are produced and understood as solicitations of patients' medical business (Robinson, 1999). In this analysis, we focus only on Type 4 questions that follow the opening phase.

In Type 4 questions there is a potential for ambiguity between the overt question agenda, which invites an *evaluation,* and the sequential position of the question relative to the opening of the visit, which provides the relevance for problem presentation. This ambiguity is made more pointed by the fact that, in ordinary conversation, "How are you?"-type questions tend to function as part of normal openings and to invite bland, nonexpansive, and troubles-resistant responses (Jefferson, 1980; Sacks, 1975; Schegloff, 1986), whereas

when understood as soliciting the reason for the visit, they invite problem presentations. As a result, patients can experience ambiguity as to how physicians "mean" Type 4 questions (i.e., as solicitations of either nonmedical and general states of being or presentations of medical business).

Type 4 questions set general evaluations as the initial agenda for patient responses. However, it is not uncommon for patients to address both of the potential relevancies of the question by first responding with somewhat bland troubles-resistant responses and subsequently volunteering multiunit responsive turns that contain presentations of their medical business. In this way, patients observably address the contradictory norms (for and against describing a problem) that bear on the alternative responses to the inquiry. For example, see Extracts 17 and 18:

Extract 17: [N:12:04]

01 a-> DOC: How you doin'.
02 b-> PAT: We:ll, pretty good. I- I just ha:d=uhm (1.0)
03 uh:: >I=had s'm-< funny symptoms, …

Extract 18: [P3:57:10]

01 a-> DOC: So how are you fee:ling.
02 b-> PAT: Well, (.) I- (.) I feel good now but=I can't
03 get rid=of=this:=uh:m (.) conge:stion.

In each case, in response to the physician's Type 4 question (a->), patients' initial responses (b->), which are possibly grammatically complete units of talk, are evaluations of their states of being: "We:ll, pretty good" (Extract 17) and "Well, (.) I- (.) I feel good now" (Extract 18). In each case, patients also display their orientations to the Type 4 questions as being produced with reference to medical business by continuing their turns with an additional unit of talk that constitutes the beginning of a symptom presentation: ">I=had s'm-< funny symptoms, … " (Extract 17) and "I can't get rid= of=this:=uh:m (.) conge:stion" (Extract 18).

The potential consequence of this ambiguity is that patients may fail to recognize the question as other than an ordinary "How are you?" question, and thus fail to present a problem. For example, in Extract 19, the physician produces his Type 4 question, "How ya doin'" (line 11), while he is in the process of sitting down but has otherwise completed opening the visit (i.e., lines 1–10):

Extract 19: [P3:108:17]

01 DOC: Hi::.=
02 PAT: =Hi:.
03 (2.5)
04 DOC: .h You a:re_
05 (0.2)
06 PAT: Shelly Lottie.
07 DOC: Shelly Lottie?=
08 PAT: =Mm h[m,]
09 DOC: [I']m Clark Norrick.
10 PAT: H(h)i(h).
11 a1> DOC: How ya doin'.
12 b1> PAT: Okay,
13 a2> DOC: .hh Bu::t,=h (.) can't be too good.
14 b2> PAT: Nah=h (.) my throat hurts.

In response to the physician's Type 4 question (a1>), the patient produces, "Okay," (line 12), which (a) unlike the initial responses in Extracts 17 and 18, is a conventionally *neutral,* troubles-resistant response (Jefferson, 1980) and a bottom-line *positive* evaluation that communicates "no problem" (Pillet-Shore, 2003); (b) is thus pragmatically complete and marks a transition-relevance place (Sacks et al., 1974); and (c) displays the patient's understanding of the physician's Type 4 questions as merely a "How are you?"-type question. In this context, the physician pursues problem presentation. His, "Bu::t," (line 13) is grammatically parasitic on the patient's, "Okay," and claims that it is a noncomplete answer. He extends this pursuit with an inquiry that resembles a Type 2 question: His subsequent, "can't be too good," (a2>) continues to pursue an answer and undercuts the patient's, "no problem"-valenced, "Okay," as an adequate answer. The physician's pursuit exploits a retroactive implication that his Type 4 question was produced to solicit a problem presentation.

In sum, Type 4 questions are designed to make immediately relevant the presentation of evaluations, not problem presentations. Although, as seen in Extracts 17 and 18, patients sometimes understand and treat Type 4 questions as solicitations of problem presentations, Extract 19 demonstrates that this is not always the case. When patients do not design their initial evaluative responses so as to project the presentation of a problem (as with the patient's, "Okay," in Extract 19), they return the interactional floor to the physician. Type 4 questions represented 16 (5.3%) cases and engendered presentations averaging 17.81 sec (Table 1).

Type 5 (history-taking) questions. Type 5 questions effectively bypass problem presentation altogether; they are history-taking questions that propose the relevance of information gathering and set agendas for patients' responses that are sharply constrained. These questions are closed ended (e.g., yes–no, fill in the blank, multiple choice, etc.). For example, see Extract 20. Prior to this extract, the physician opens the visit (i.e., he enters the room, greets the patient, secures the patient's identity, and silently reads the records; Robinson, 1998). At line 13, as the physician continues to gaze at (read) the records, he opens the business of the visit with a yes–no, history-taking question, ">You have< any fe:ver?" (see HT->), to which the patient answers with a *no*-type response, "Ah:: I don't believe so" (line 15):

Extract 20: [N:11:08]

12 (1.0) (reading patient's records)
13 HT> DOC: >You have< any fe:ver?
14 (0.4)

15 PAT: Ah:: I don't believe so. I think
16 he [just (ch-)]
17 DOC: [(Mm.)]
18 PAT: [(I just) took- my temperature (at home).]
19 DOC: [( )]
20 a little bit.
21 HT> DOC: How long do you feel (.) kin'a sick.

Note that the patient's second responsive unit, "I think he just (ch-) (I just) took- my temperature (at home)" (lines 15–16, 18), is not a problem presentation. After this, the physician pursues a differential diagnosis by continuing information gathering: "How long do you feel (.) kin'a sick" (line 21). Type 5 questions represented 18 (6.0%) cases and engendered presentations averaging 10.72 sec (Table 1). Although space limitations prevent elaboration, these figures show that, albeit rarely, patients can and do sometimes work out from under the constraints of Type 5 questions to present problems.

Representing the entire corpus of 302 visits, Table 1 presents the frequency of question types and the associated lengths of problem presentations they engendered.

QUANTITATIVE ANALYSIS

Emerging from our interactional analyses is one hypothesis and one research question:

H1: Problem presentations initiated by Type 1 (i.e., general inquiry) questions will be more extensive than those initiated by Type 2 and Type 3 (i.e., confirmatory) questions.

RQ1: What demographic and health-context variables are associated with physicians' uses of general-inquiry versus confirmatory question types?

Measures

The problem-presentation phase of all 302 visits was coded for nine variables. In the following, we discuss their operationalization after that of problem presentation.

Problem presentation. In accordance with prior research (Heritage & Robinson, 2006; Robinson, 2003), problem presentation was operationalized as all patients' communication beginning immediately after physicians' phase-initiating questions and ending at physicians' initial attempts to shift out of problem presentation into a different activity, most commonly that of information gathering. With several caveats (listed later), and largely in line with prior research (Beckman & Frankel, 1984; Marvel et al., 1999),[6] we operationalized physicians' attempts to shift out of problem presentation as any complete turn of talk that initiated the first part of an adjacency-pair sequence (Schegloff & Sacks, 1973). The majority of these turns consisted of history-taking questions (e.g., "How long's that been goin' on for?"). Other sequence-initiating turns included questions about medications (e.g., "Which inhalers do you take?"); repair initiations involving reformulations of patients' talk that included symptoms not disclosed by patients (e.g., "Back pain?," uttered immediately after the patient produced, "my back," as a gloss of his problem); requests to review patients' medical records (e.g., "Can I look in here and see what he did for you?"); physical exam-related requests or directives (e.g., "Have a seat over here," referring to the exam table); and nominally "social" questions about work, family, and so forth (e.g., "You teach here in Small City?"). We also included two types of nonsequence-initiating turns including diagnosis-related statements (e.g., "It looks like you probably have some posttraumatic tendonitis") and summative, sequence-closing assessments (Jefferson, 1978) of problem presentation (e.g., "Well that sounds like a pretty good history there").

Several types of sequence-initiating actions were not coded as shifts and included the following: repair initiations (Schegloff, Jefferson, & Sacks, 1977) targeting materials other than symptoms (e.g., "The weekend clinic?," uttered after the patient said "I went to the clinic"), repair initiations formatted as verbatim repeats (see Schegloff, 1996a) of patients' words (e.g., "A lot of pain?," uttered after the patient said "I have a lot of pain"), and utterances specifically designed to solicit additional problems (e.g., "That's why you're here?" and "Anything else?"). We did not include several types of nonsequence-initiating actions such as physicians' *continuers* (e.g., "Uh huh" and "Mm hm"; Schegloff, 1982), *acknowledgment tokens* (e.g., "Okay" and "Alright"; Beach, 1995), *marked acknowledgment tokens* (e.g., "Right" and "I see"; Heritage & Sefi, 1992), *the token "Oh"* (Heritage, 1984a), *response crys* (e.g., "Holy mackerel"; Goffman, 1981), *agreement tokens* (e.g., "Yeah"), *newsmarks* (e.g., "Oh you do?"; Heritage, 1984a), *assessments* (e.g., "Good"), *expressions of sympathy* (e.g., "That's not a good thing," uttered immediately after "I feel like I'm falling apart"), and *responses to patient-initiated actions* (e.g., "Oh well thank you," uttered in response to "He thought you were absolutely delightful by the way").

Question type—general inquiry versus confirmatory. Working from our qualitative analysis, question type represented the question that physicians used to initiate problem presentation. Only Types 1 through 3 (89% of cases) were included for analysis. Question Type 4 (5%) was omitted because it is not clearly related to problem presentation; it can promote talk unrelated to problem presentation, which potentially confounds the dependent variables. Question Type 5 (6%) was omitted because it specifically avoids or skips problem presentation by initiating information gathering; its

[6]Because the Beckman and Frankel (1984) categories of "elaborator" and "recompletor" systematically provide patients with opportunities to continue problem presentations, they were not coded as "completing" patients' problem presentations.

exclusion makes our findings relatively more conservative. The unit of analysis was physicians' turns. If turns contained more than one question type—as in Extract 13, in which the physician begins with a Type 1 question but shifts to a Type 2 question—we coded for the last question, which has been shown to be the most interactionally proximate and relevant question (Sacks, 1987). If, immediately after patients' responses to Type 2 and Type 3 questions, physicians proceeded to ask a Type 1 question—as in Extracts 11 and 16—we coded for the Type 1 question. The variable, "question type," represented either general inquiries (i.e., Type 1; 62%) or confirmatory questions (i.e., Types 2 & 3; 27%).

The extent of problem presentation. We operationalized the extent of problem presentation in two ways. First, in line with previous literature (Beckman & Frankel, 1984; Marvel et al., 1999), we coded the length of presentations in seconds (M = 21.4, SD = 22.1, range = 1–143). The mean length of problem presentation in our sample is very close to the 23.1 sec reported by Marvel et al. To address issues of skewness and kurtosis, the square root of this variable was used for analytic purposes.

Second, we coded the number of present-tense (i.e., framed as currently occurring or relevant) medical symptoms. Our unit of analysis was the turn-constructional unit (Sacks et al., 1974), and thus it was possible for single units to contain more than one current symptom. Current symptoms included both biomedical and psychosocial descriptions of problems (e.g., "I have a sharp pain in my right side" and "My wife and I have a hard time relating to each other"), their location (e.g., "It's into the ears"), and their duration (e.g., "It's been off an' on for the last four days"). The following were not coded as current symptoms: (a) conventional evaluations of personal states of being (e.g., "Pretty good"), (b) (dis)confirmations of symptoms-related questions (e.g., "Yeah"), (c) glosses of symptoms (e.g., "My ear's been acting up"), and (d) self-diagnoses (e.g., "I think I have a kidney infection"). We operationalized the variable, "current symptoms," as either one-or-fewer current symptoms (47%) or more-than-one current symptom (53%).

Additional variables. From previsit surveys, we coded for patient age (M = 43.3, SD = 15.1, range = 17–87), race (66% White, 34% non-White), gender (36% male, 64% female), and education (40% ≤high school, 60% >high school), all of which have been shown to affect physician–patient communication (Roter & Hall, 1992). The "practice type" of visits was coded as either urban (63% from Los Angeles corpus) or rural (37% from central Pennsylvania corpus). The "problem type" of visits was coded as either upper respiratory (40%) or nonupper respiratory (60%); upper respiratory was operationalized according to the National Ambulatory Medical Care Survey's Reason-For-Visit Classification (National Center for Health Statistics, n.d.) as patients presenting with the symptom categories of nasal congestion, sinus problems, wheezing, breathing problems, sneezing, cough, throat pain and drainage, chest congestion, or loss of voice. With the exception of age and visit length (which were continuous), all variables were assigned binary dummy codes.

Results

To test our hypothesis regarding the extent of problem presentation, we ran two tests. First, an analysis of variance—testing the association between one dependent variable (visit length) and seven independent variables (question type, patient age, patient gender, patient race, patient education, practice setting, and problem type)—produced a significant two-predictor model, $F(7, 245) = 10.75$, $p < .0001$, adjusted $R^2 = .22$, including question type, $F(1, 245) = 59.95$, $p < .0001$, and patient age, $F(1, 245) = 6.60$, $p = .01$.[7] Therefore, problem presentations initiated by Type 1 (i.e., general inquiry) questions (M = 27.1 sec) are significantly (i.e., 2.3 times) longer than those initiated by Type 2 and Type 3 (i.e., confirmatory) questions (M = 12 sec). Further, older patients have significantly longer problem presentations than younger patients. Second, a bivariate logistic regression—testing the association between one dependent variable (i.e., current symptoms) and the same seven independent variables—revealed question type to be the only significant predictor: N = 245, odds ratio (OR) = 4.11, confidence interval (CI) = 95% (2.25–7.51, $p < .0001$). Therefore, problem presentations initiated by Type 1 (i.e., general inquiry) questions are significantly more likely to include more than one current symptom (vs. 1 or fewer) than those initiated by Type 2 and Type 3 (i.e., confirmatory) questions.

To answer our research question, we used one bivariate logistic regression to test the association between one dependent variable (i.e., question type) and six independent variables (patient age, patient gender, patient race, patient education, practice setting, and problem type), which revealed practice setting to be the only significant predictor: N = 245, OR = 2.78, CI = 95% (1.40–5.51, $p = .003$). Therefore, physicians operating in urban Los Angeles (vs. rural central Pennsylvania) clinics were significantly more likely to use (confirmatory) Type 2 and Type 3 questions.

DISCUSSION

This article focused on problem presentation, the only phase of primary, acute-care medical visits that is institutionally designed to provide patients with interactional space in which to present their concerns in accordance with their own agendas. Using the method of CA, we identified five basic question types that vary primarily in terms of the extent to which

[7]None of the independent variables were intercorrelated at levels above .50, warranting their inclusion in our statistical models.

they acknowledge information that patients have already presented to nursing staff, and in terms of the type of response they invite from patients. These questions are treated in qualitatively different ways by patients. Most common (62%) were general-inquiry (i.e., Type 1) questions (e.g., "What can I do for you today?"), which formulate an agnostic stance about the precise nature of patients' medical business, invite its immediate presentation, and allow patients to present their concerns in their own terms. Less common (27%) were confirmatory (i.e., Type 2 and Type 3) questions (e.g., "I understand you're having some sinus problems today?"), which index physicians' knowledge about patients' problems and constrain patients' immediate responses to (dis)confirmations, which systematically curtails problem presentation.

We quantitatively confirmed and elaborated these findings. Compared to confirmatory questions, general-inquiry questions were associated with significantly longer problem presentations (in seconds) that included more current symptoms. Whereas Type 2 questions request confirmation of a gloss of patients' problems, Type 3 questions request confirmation of concrete symptoms. It appears that, compared to Type 2 questions, which provide for the relevance of patients unpacking physicians' glosses, Type 3 questions more strongly invoke the conversational norm that sanctions persons who convey information to recipients who already have knowledge of it (Maynard, 2003; Terasaki, 2004), which induces a stronger form of self-censorship among patients presenting problems. The frequency of highly brief answers to Type 3 questions suggests that, compared to Type 2 questions, Type 3 questions constitute a method for initiating problem presentation that distinctively communicates physicians' readiness to initiate, and enforce the initiation, of the next phase of the visit: information gathering.

Two additional aspects of our results should be highlighted. First, amid numerous variables apart from question design (i.e., patients' age, gender, race, and education; problem type; practice setting), the only other variable that was significantly associated with problem presentation was patient age. Compared to younger patients, older patients had significantly longer problem presentations. However, such presentations did not contain significantly more current symptoms. There are several possible explanations for these findings: (a) Older (vs. younger) adults talk more slowly (for review, see N. Coupland, Coupland, & Giles, 1991); (b) due to stereotypes and processes of communicative accommodation (N. Coupland et al., 1991), physicians may allow older (vs. younger) patients more interactional space; and/or (c) because older (vs. younger) adults tend to engage in more painful self-disclosure (N. Coupland et al., 1991), older patients may disclose more about (vs. disclose more) current symptoms or disclose more dealing with topics that do not include current symptoms (e.g., family, finances, etc.).

Second, although question type significantly affected the extent of patients' problem presentations, physicians were more likely to use confirmatory questions when practicing in an urban (Los Angeles) practice setting, compared to a rural (central Pennsylvania) practice setting. The underlying mechanisms of this finding are currently opaque and deserve further research. More important, despite this finding, practice setting was not significantly associated with the extent of problem presentation, suggesting that the influence of practice setting on extent of problem presentation, which was clear in bivariate analysis, is fundamentally exerted indirectly through the medium of question design itself.

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