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Treatment Recommendations as Actions

RUNNING HEAD: TREATMENT RECOMMENDATIONS

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From the earliest studies of doctor-patient interaction (Byrne & Long, 1976), it has been recognized that treatment recommendations may be expressed in more or less authoritative ways, based on their design and delivery. There are clear differences between *I'm going to start you on X*, *We can give you X to try*; and *Would you like me to give you X*. Yet little is known about this variation, its contexts, or its consequences. In this paper, we develop a basic taxonomy of treatment recommendations in primary care as a first step towards a more comprehensive investigation. We take as our point of departure the observation that treatment recommendations such as those above not only represent different formulations, they represent different social actions. We distinguish five main treatment recommendation actions: pronouncements, suggestions, proposals, offers and assertions. We ask what the main dimensions on which these recommendations vary are and to what end? And what sorts of factors shape a clinician's use of one action type over another with respect to recommending a medication in the primary care context?

Treatment Recommendations as Actions

When doctors recommend treatment to patients, they do so in a context in which the patient has actively sought medical advice. In taking this action, patients at least tacitly adopt the position that they are uncertain about, or unable to implement, an appropriate course of remedial action without medical assistance. In this context, physicians are treated as sources of authoritative information and expertise about medical problems. They exercise this authority, in part, during the treatment phase of the visit. From the earliest studies of doctor-patient interaction (Byrne & Long, 1976), it has been recognized that treatment recommendations may be expressed in more or less authoritative ways, based on their design and delivery. There are clear differences between *I'm going to start you on X*, *We can give you X to try*; and *Would you like me to give you X*. Yet little is known about this variation, its contexts, or its consequences.

In this paper, we develop a basic taxonomy of treatment recommendations in primary care as a first step towards a more comprehensive investigation. We take as our point of departure the observation that treatment recommendations such as those above not only represent different formulations, they represent different social actions. We distinguish five main treatment recommendation actions: pronouncements, suggestions, proposals, offers and assertions. We ask: what are the main dimensions on which these recommendations vary and to what end? And what sorts of factors shape a clinician's use of one action type over another with respect to recommending a medication in the primary care context?

Background

Social scientists have long considered that the practice of medicine involves the deployment of social authority (Parsons, 1951; Starr, 1982). This authority has grown as the scope of medical science has expanded beyond diagnosis and prognosis to embrace effective and reliable treatment (Shorter, 1986; Starr, 1982). Part of this authority is epistemic, based on the more general cultural authority of the scientific method and its practical achievements (Starr, 1982). However, resting on this epistemic authority is the deontic dimension in which physicians, having made a diagnosis, assume the right to direct patients' future actions (Stevanovic & Peräkylä, 2012). Success in this latter enterprise invites patients to engage in what Starr (1982, p. 15) terms 'the surrender of private judgment,' in which patients acquiesce to recommendations without necessarily fully understanding their background.

Previous research has exposed critical differences in how medical authority is implemented in the diagnosis and treatment phases of medical visits. While physicians' epistemic authority in diagnosis is near absolute, and rarely requires or even invites patient acceptance (Heath, 1992; Peräkylä, 1998), the deontic authority of treatment recommendations is not. Ultimately, it is for patients to decide whether to accept and subsequently implement a treatment recommendation, and, correspondingly, physicians build their recommendations to receive explicit acceptance from patients, and work to secure acceptance when it is not forthcoming (Koenig, 2011; Stivers, 2005b, 2005c, 2007).

Although physicians typically progress to the treatment recommendation without patient/parent acknowledgement of the diagnosis, they rarely progress to closing the visit without overt acceptance of the treatment recommendation (Stivers, 2005c). Instead, if a patient/parent

fails to accept a recommendation, the physician typically pursues acceptance through restating the treatment, accounting for it, or even modifying it.

In addition to the features of the treatment recommendation sequences just described, research has also examined some specific aspects of the design of treatment recommendations. First, research has documented that patients respond differently to affirmatively designed treatment recommendations (*He needs antibiotics*) than negatively designed recommendations (*He doesn't need any antibiotics*). Specifically, resistance is more likely in response to negative recommendations than positive recommendations, even if we only consider non-antibiotic recommendations (Stivers, 2005b). Other work on treatment recommendation formulation has examined doctors' provisions of accounts for recommendations (Angell & Bolden, 2015), and patients' accounts for rejections (Landmark, Gulbrandsen, & Svennevig, 2015; Lindström & Weatherall, 2015). Finally, Kushida and Yamakawa (Kushida & Yamakawa, 2015) have observed that two distinct types of proposals (Let's/How about vs. declarative evaluations) are used in different environments. They argue that the former is used for the making of decisions whereas the latter is used to cautiously move towards decision-making. These studies notwithstanding, there remains a dearth of systematic investigation into the different ways that physicians recommend treatment.

Data and Method

We relied on two corpora of video recordings of primary care encounters collected between 1997-2004 in Southern California community based clinics. In addition, we draw on a comparable set of audio recordings of primary care visits from England (Barnes, in press). All data were collected in accordance with the relevant human subjects board approvals, and all

participants provided informed written consent. Patients were primarily being seen for acute conditions but many had ongoing chronic conditions as well.

We identified 697 instances of physician initiated recommendations for new medications across the US (n=393) and UK (n=304) data. We also only examined initial recommendations for new medications, so subsequent recommendations for the same medication in the same visit were not included nor were dosage changes of the same medication. Finally, we were very broad in what counted as a recommendation. Thus, vague or general recommendations "for treatment" or for "something" *were* included. However, inquiries about whether a patient has tried a medication were *not* (c.f., Barnes, in press). The general rationale was that a recommendation should be included if it is *understandable as* a recommendation for new medication. Not all instances were included in all analyses (e.g., if they were for multiple medications).

We coded each recommendation for a number of features including the type of medication being prescribed, the type of visit in which it occurred (e.g., acute vs. follow up vs. chronic care), patient and doctor demographics, and the type of diagnosis involved (new vs. previous). With regard to the specifics of the recommendation, we coded for a number of features of the recommendation's design and response. The dimensions are reviewed in Stivers and Barnes (in press). This article focuses on the social action through which the recommendation was implemented. We describe the five main types of social actions used, drawing on both the UK and US data sets to illustrate these.

Analysis

Treatment recommendations are generally directives: actions including "offers, requests, orders, prohibitions, and other verbal moves that solicit goods or attempt to effect changes in the activities of others" (Ervin-Tripp, O'Connor, & Rosenberg, 1984, p. 116). As noted by Stevanovic and Svennevig (2015, p. 2), these actions "have a common core, but vary along deontic dimensions such as necessity (for instance between orders and proposals) and desirability of the requested action (such as between requests and warnings), and according to the speaker's entitlement (such as between commands and suggestions)." Like other directives, treatment recommendations embody epistemic and deontic authority both as a background to their production, and as encoded in their design. Given this, we might speculate that the action level of the recommendation might be associated with whether a patient responds to the recommendation at all, whether to accept, acknowledge, or resist.

As reviewed in the background section, prior literature found evidence for responsiveness to recommendations generally but did not examine this aspect of recommendation design. We observe that treatment recommendations are typically done through: Pronouncements, Suggestions, Proposals, or Offers. An additional form of recommendation emerged, in a small number of cases, through the assertion of some generalization about a treatment's benefit, implying a recommendation without actually making one (Heritage & Sefi, 1992; Silverman, 1997a; Toerien, in press). In these data we find that patients are no more likely to respond to suggestions, proposals, offers, or assertions than they are to pronouncements (See Table 1).

Table 1 about here

This is supportive of prior research that there is a norm to respond to treatment recommendations (Stivers, 2005c), and this suggests that this norm holds irrespective of the action through which a recommendation for treatment is made. But if securing response is not the primary function of different action types, then it is likely that the recommendation actions are rather reflecting the context out of which the recommendation comes. It is with these details, and their contexts, that we are primarily concerned. Thus, in what follows we describe these different action types, describe their affordances, and identify the diagnostic and treatment recommendation contexts in which they are used.

Pronouncements

Pronouncements are the most common of the action types in both the US and the UK consultations, but whereas they comprise 65% of US treatment recommendations, they are significantly less frequent in the UK, representing only 29% of recommendations [$\chi^2(1, N = 697) = 90.2, p < .001$]. The propensity to rely on pronouncements in the American primary care context persists even when we consider many other factors. In Table 2, we summarize a multivariate model predicting the use of pronouncements in contrast with other action types. In this model we see that American physicians are more likely to rely on pronouncements than their British counterparts. We also find that independent of the country effect, prescription medication is more likely than over-the-counter medication to be recommended with a pronouncement; that anti-infective medication is more likely than other medications to be recommended with a pronouncement; and that acute illnesses rather than chronic illness treatments are more likely to be done with pronouncements. Preliminary analyses examined demographic factors including participant age, gender, and racial/ethnic background but did not find these to be predictive.

Table 2 about here

What this suggests is that British physicians rely on more patient inclusive ways of delivering treatment recommendations, and that illness and medication contexts are insufficient to explain this disparity. It also suggests, though, that the same illness and medication contexts condition the use of pronouncements in the two countries, just not to the same degree. Moreover, the design of pronouncements is similar in the two countries: their essential features involve the physician asserting full agency over instigating the recommendation; treating the decision as already determined; and, consequently, delivering the recommendation *as though* the patient has no choice in the matter. For instance, see Extract 1 taken from the UK corpus. Here, the patient came in for the results of a blood test done previously as part of screening for the root of a headache problem. The blood test revealed that the patient has been anemic for some time (see part of this in lines 1-4). The recommendation "I'll start you on treatment with iron tab-supplements." is a pronouncement.

(1) UK

DOC was just typing on PC

1 DOC: I ^think we have to investigate you for anemia.

2 (0.3)

3 PAT: Oka:y?

4 DOC: I'll **start you on treatment with iron**

5 **tab- supplements.**

6 PAT: °R(h)ight. Okay?°=

7 DOC: =So it means you have to actually have a few

8 more blood tests done.

9 PAT: ^Mm hm?

10 DOC: And I will give you the forms for it today.

The treatment decision particularly through the design "I'll start you on" is not presented as shared with the patient. The physician asserts full agency over making the recommendation, not attributing the decision to give iron supplements to the patient. Moreover, the treatment is presented as final and non-negotiable. The patient's agency in adhering to the recommendation is nowhere recognized. Notwithstanding the fully unilateral character of this recommendation, the patient immediately and overtly accepts it with "°R(h)ight. Okay?°" thereby orienting to her rights to accept or decline the recommendation. This pattern is consistent across pronouncements -- recommendations that are delivered as already determined and not seeking acceptance, nonetheless typically receive it. Indeed when acceptance is not present it is typically pursued (Stivers, 2005c). Consider Extract 2, taken from the US. Here the physician is completing a physical examination just prior to this extract. The "Okay." serves to boundary the exam from the treatment discussion phase (Beach, 1993). At line 1 the physician moves to recommend treatment for a UTI using a pronouncement "I'm going to start you on Bactrim."

(2) US

1 DOC: Okay. So, (0.2) uh::m, (0.6) <l'm goi:ng to:>

2 start you on Bactrim,

3 DOC: We [can do uh three day course of Bactrim,]

4 PAT: [((nodding))]

5 DOC: [uhm:,]=

6 PAT: [°Okay.°/((nodding))

7 DOC: =an:d uh: (0.2) I need tuh know how you're

8 feeling, . . .

The treatment recommendation is again presented as a unilateral decision particularly through the design "<I'm goi:ng to:> start you". Moreover, as with (1) the recommendation is presented as fully at the instigation of the physician and as already determined, with no invitation of patient acceptance. Yet, in the absence of acceptance after the recommendation in line 3, the physician pursues with a revised and more specific version of the same recommendation *We can do a three day course with Bactrim* which is then vocally accepted by the patient in line 6. What is important in terms of the action of pronouncements for our purposes is that they are *delivered as* decisions that have been made and are not in search of response, regardless of the uptake that actually follows -- something we will return to later.

We would expect that pronouncements would be difficult for patients to resist, but patients *do* resist them, albeit only 11% of the time (n=30), half to one third as often as some other recommendation types; n=68) [χ^2 (1, N = 615) = 9.17, $p < .01$]. This reduction in resistance could be interpreted as conditioned by the use of a pronouncement, but it is also possible that pronouncements are more typically used in contexts in which physicians anticipate minimal resistance.

Returning to the design of pronouncements, we observe that they can highlight the doctor's role as in the *I'm going to X* format, or they can highlight the patient's role (e.g., "You're gonna take"). In (3), for instance, the patient's role is foregrounded with *You need to use the cold compresses or ice pack, And take something for the pain*. But in common with doctor-focused pronouncements, this recommendation also represents the patient as without a choice and represents the decision as instigated fully by the physician.

(3) UK

((Doctor has been typing for some time))

1 DOC: **You need to use the cold compresses or ice pack,ⁱ**

2 (0.3)

3 PAT: [Yeah,

3 DOC: [**And take something for the pain.**=You are

4 allergic to a lot of (.) medications so;,

5 PAT: Yea:h, I've go- I've got me Co-proxamol so, (0.3)

Pronouncements include stronger and weaker forms: *I'm going to prescribe you uh trancinalone ointment; I'm going to start you on Bactrim; You're gonna take some antibiotics for a few days; and I think we need to give you an anti inflammation agent.* Yet each of these presents the treatment as required. Patients can, nonetheless, resist, but the delivery works to discourage resistance by presenting the recommendation as a settled fact, in which physicians support it with the weight of full epistemic authority over the treatment decision, and full deontic authority to recommend and decide on the patient's behalf.

Suggestions

Whereas pronouncements unilaterally assert the treatment *as though* patients have no alternative, suggestions recommend in a way that leaves the decision largely in the hands of the patient, while nonetheless asserting agency over making the recommendation. Suggestions include *You could try Claritin for that; It's not going to harm you to try Parkinson pills; I would get some twelve hour Sudafed; Now there is an oil that probably you should be using on a regular basis and it will help your rash too; And then uhm you can take the Advil.* As these examples suggest, whereas pronouncements mandate the treatment, suggestions are provided for

patients to act on (or not) (Couper-Kuhlen, 2014). Suggestions are more commonly used to recommend over-the-counter medications, but not exclusively so. For instance, the Parkinson pills mentioned above are by prescription. It is also notable that some suggestions encode stronger physician endorsement than others. Thus *I would get . . .*, with its apparent identification with the patient's perspective, appears stronger than *You can try. . .* Despite this range, all suggestions treat the recommendation as optional, which is in direct contrast with pronouncements. Patients resist suggestions with roughly equal frequency to pronouncements (13% in contrast to 11%). Suggestions comprise virtually the same proportion of cases in both corpora, 24% in the UK (n=94) and 21% in the US (n=65).

In (4), the patient presented with recurrent bloody noses. The doctor has recommended blood tests and iron pills. Just prior to this extract the patient has renewed complaints about nasal drainage. Here the physician indicates another possible precipitating factor -- postnasal drip -- (lines 1-2), for which she suggests Claritin as a viable treatment (line 4).

(4) US

- 1 DOC: Theh- other possibility: i- it might be
- 2 just post nasal dri:p.
- 3 PAT: Well that's what ^i think. you know, but:_
- 4 DOC: >Ya know< you could try ^Claritin for that.
- 5 PAT: Yeah °I've got some Claritin.°
- 6 DOC: Okay. (1.0) ((other line of questioning))

This recommendation is delivered as entirely optional. Moreover, in contrast to other suggestion formulations such as "I would try" or "You should try", this highlights the patient's sole discretion in the treatment decision. Moreover, the rationale behind the recommendation is presented as only a "possibility . . . [of] post nasal dri:p" which may further underscore the

optionality of the recommendation. With the suggestion, the physician effectively invites the patient to empirically test a treatment that is not fully grounded in a physical diagnosis, while leaving it to the patient to decide. The patient's response in line 5 attests to having the suggested medication, showing her own understanding of the treatment decision as in her hands.

In (5), the patient was in a car accident several days previously, and has not returned to work, complaining of stiffness and pain. A physical examination has just been completed when the physician asks at line 1 whether the patient is taking pain medication. In response the patient affirms (lines 3 and 5) but goes on, in lines 7-8, to express reluctance to "constantly taking them". At this point, the doctor acknowledges the patient (line 10) but subsequent to various administrative work (lines 11-12), she recommends their use (lines 13-14).

(5) UK

1 DOC: Are you taking any painkillers.

2 (0.6)

3 PAT: U::h I did do yesterday. I have, >but I mean I

4 haven't< I woke up with a bit of a headache (.) again

5 this morning, so I've had some this morning,

6 (0.7)

7 PAT: But I'm trying not to take tuh- y'know, constantly

8 taking them 'cuz,

9 (3.5)/((*typing*))

10 DOC: °O[kay.°

11 DOC: [Uh::m_

12 (8.7)

13 DOC: Well, (0.3) I ^think I would chan- **I would take**

14 **them, .hh because they help (0.5) they help the mobility_**

15 PAT: Right. Okay,

16 DOC: Because if your (0.3) if your shoulder you know if you're

17 not moving it you might get a frozen

18 shoul[der.

19 PAT: [Right_ Oka:y_ Yeah_

The recommendation action clearly leaves the continuation (or not) of the medication as a matter for the patient to decide. The format "I would take them," is arguably stronger than (4) *you could try* insofar as the doctor adopts the patient's perspective and presents the decision as she would make in the patient's position. However, even this stronger version, made yet stronger with the subsequent account *because they help the mobility*, highlights the recommendation's optionality.

Although with suggestions physicians relinquish deontic authority over the decision to take the medication, patients still orient to physicians' suggestions *as* recommendations and thus as warranting uptake, as shown in the acceptances in (4) at line 5 and (5) at line 15. There is no difference in the rate at which patients resist suggestions than pronouncements. This may be because physicians retain epistemic authority over the recommendation itself.

Proposals

Proposals arguably sit between pronouncements and suggestions insofar as they involve the physician recommending treatment in a way that specifically invites the endorsement or collaboration of the patient. The collaborative nature of proposals is true in everyday interaction as well (Clayman & Heritage, 2014; Couper-Kuhlen, 2014). They neither formulate treatment as entirely up to the physician nor as entirely at the patient's discretion. Rather proposals enact a sharing of deontic authority over the recommendation with patients. Proposals are significantly

more frequent in the UK than the US data, constituting 16% (n=64) of recommendations in the UK but only 4% (n=11) of recommendations in the US [$\chi^2(1, N = 697) = 28.64, p < .001$]. Once again, qualitatively, they appear to be highly similar.

Proposals include *So what we can do for the shoulder is put an injectable steroid in there; Why don't we put you on the plain Allegra; We can throw in a little anti inflammatory; There is an inhaler we can try to use to open up your airways; or That's an option. We can give you some of that to try.* In principle other formulations such as *Shall we start with X and see how it goes?* or *How about trying X* would be proposals, but we did not have such examples in these data (cf., Kushida & Yamakawa, 2015). Like pronouncements and suggestions, proposals vary in terms of the strength of the physician's endorsement with *Why don't we* perhaps being stronger than *We can give you some of that to try.* Finally, recommendations done as proposals generally share a presentation that orients to the recommendation as speculative, typically in an environment of diagnostic, treatment or etiological uncertainty. In this way, physicians present their epistemic authority as reduced.

These dimensions of a proposal recommendation are illustrated in (6) where the patient presented with a severe rash and hives several days ago. Most symptoms have subsided somewhat but the problem is nonetheless repeated, and the patient is concerned about recurrence on an upcoming trip. She reports having successfully tried Allegra D to treat hayfever in the past. That medication includes both an antihistamine and a decongestant. Here the physician recommends *plain Allegra* for the condition. The milligrams specify the 24-hour dose.

Although "plain Allegra" contains the identical dosage of antihistamine to the Allegra D that the patient has taken, the proposal is done as a new and alternative treatment recommendation. Specifically, this recommendation utilizes a proposal format of *Why don't we*.

(6) US

1 PAT: . . . and that's thee only thing that was- that's

2 d^ifferent.= [hh

3 DOC: [.hh **Why don't we try this. (.) Why**

4 **don't we put you on thuh <plain Allegra,>**

5 PAT: Mka[y,

7 DOC: [.hh Uh once d_{ai}ly dose of uh hun[dred=

8 PAT: [Kay.

9 DOC: =an' eighty milligra:ms, an' [that should prevent=

10 PAT: [Mkay,

11 DOC: =this rash from coming ou:t, . . .

The recommendation proper *Why don't we put you on the plain Allegra* is preceded by a remark that highlights two aspects of proposals. First, *Why don't we try this* conveys the forthcoming recommendation as not yet settled, but is designed for further discussion (even if it is merely accepted by the patient). This contrasts particularly with pronouncements where the recommendations are delivered as entirely determined at the time of their delivery. This is one way that the proposal invites collaboration in the decision making process. Second, the reference to *try* in the framing sentence highlights that it is unclear whether the medication will be effective in alleviating the patient's symptoms, thus adding an additional epistemic hedge, to a recommendation presented with reduced deontic authority. Suggestions can share this latter

characteristic; but whereas suggestions are presented as a clear decision by the physician for the patient to act on, proposals are presented as a decision to be made together with the patient.

The recommendation proposes Allegra as a solution to the patient's problem. This is not further discussed by the patient who accepts the recommendation (line 5), but it offers that opportunity, nonetheless. Following the patient's acceptance, the physician specifies his recommendation's dosage and frequency (lines 7/9). In this case although there is no apparent diagnostic uncertainty, there remains reason to be unsure whether the treatment will be effective.

A second example of a proposal is shown in (7) at lines 12-13. This patient presented with abdominal pain following bowel movements. At line 1 the physician is completing a physical examination which he assesses as *perfectly normal*. Subsequently, he speculates that the pain may be related to constipation. This speculation is indexed with the formulation "I wonder if you might be getting a little bit (.) constipated,". This speculative diagnosis leads directly into a treatment recommendation that is formatted as a proposal at lines 12-13.

(7) UK

- 1 DOC: Everything feels perfectly normal,=
 2 PAT: =°Yeah°.
 3 (0.3)
 4 DOC: But I ^wonder if you might be getting a little
 5 bit (.) constipated, and whether the
 6 (0.9) the pain's (started hurting) (0.4)
 7 .hhh whether the pain may actually
 8 be due to er .h your bowels not (1.0)
 9 working as well as they mi:ght. Possibly
 10 because of the poor appetite_ .Hhh=

11 PAT: =Ye:s.=

12 DOC: =What I think is thi::s, uhm .hh (0.6)

13 I'd l*ike* to suggest (.) we tr:y some Lactulose,

14 which is a .hh e::r a very sort'ov (.) natural

15 (.) m*ild* (.) opening medicine,

((12 lines not shown))

28 DOC: .Hh ^If by doing that the pain doesn't go away

29 then we ma::y have to (0.6) uh::m (0.5) look a

30 bit further at it.

As in the previous example, the recommendation is framed with a statement orienting to what follows as something he *thinks* and foreshadows the proposal to come as the outcome of a clinical judgement rather than definitive empirical evidence. Also common to the two examples is a degree of uncertainty. In (6), although it was clearly an allergic process, it was unclear whether the proposed treatment would be effective. In (7), the uncertainty is located in the diagnosis but extends to the treatment. If the physician is incorrect about the diagnosis, then this treatment is unlikely to be effective.

The actual formulation of the physician's treatment recommendation involves, at its core, that "we tr:y some Lactulose". This is similar to the previous case in depicting the remedy as not yet a final decision but one being proffered for patient input. It also represents the proposed treatment as a trial and hence of uncertain benefit. This is reinforced by what follows the recommendation when he characterizes the medication as a *mild opening medicine*, a description

which suggests a trajectory of additional treatment options should this prove ineffective.

Moreover, the initial indirect framing of the recommendation *I'd like to suggest*, in contrast to *I suggest*, conveys additional distance from the recommendation (Brown & Levinson, 1987). This distance reduces the strength of the physician's endorsement recommendation. In turn, this increases the relevance of the patient's stance towards the treatment.

The distinctiveness of proposals as an action for recommending treatment lies in the way that they combine an orientation to the final decision as not yet made and in need of patient collaboration, and the designedly speculative nature of the recommendations. In (6) we observed uncertainty about the effectiveness of the treatment; in (7) the uncertainty was located in the diagnosis itself. These uncertainties are common among treatment recommendations formatted as proposals. Although both suggestions and proposals frequently make use of words like *try*, suggestions are not generally associated with diagnostic or treatment uncertainty. Rather, in the suggestion context, *try* is concerned with highlighting the optionality of the treatment. Correlatively, in suggestions, physicians present treatments as likely to be effective but withhold endorsing their necessity while in proposals, physicians present treatments as of uncertain effectiveness while nonetheless endorsing their potential value.

The nature of proposals as actions which invite patient involvement may help to explain why they are one of the two action contexts most likely to encounter patient resistance. Proposals are resisted 30% of the time (n=19), significantly more often than the other two actions we examined which were resisted 11-13% of the time [$\chi^2(1, N = 615) = 10.6, p < .01$]. But it is also possible that the fact that proposals are typically delivered when physicians are most speculative is what conditions the resistance.

Offers

Common across pronouncements, suggestions and proposals is that the doctor claims sole agency over making the recommendation. With offers, by contrast, physicians imply a *willingness* to prescribe, treating the instigator of the recommendation as the patient. This is a common feature of offers in other contexts as well (Curl, 2006; Toerien, Shaw, Duncan, & Reuber, 2011; Wheat, Barnes, & Byng, 2015). Of course, treatment recommendations are always responsive to patient problems, but offers are distinctive in that their design underscores their responsiveness and implies patient agency as the driving force behind the recommendation. By contrast, in pronouncements, suggestions, and proposals, the solution to the patient's problem is presented as a product of the physician's agency. Offers, like proposals, are significantly more common in the UK data than the US data, comprising 15% (n=58) versus only 5% (n=15) [χ^2 (1, $N = 697$) = 17.64, $p < .001$]. As with other action types, offer designs in the UK data appear virtually the same as those in the US data. In these visits, offers include *If you'd like I can give you a sample of a nasal steroid spray; If you want we can put you on a nail polish; You want some cough medicine too?; or I could start you on some medication if you like to help you kinda to help you with your mood*. Although a physician can more or less strongly endorse an offered recommendation, we suggest that physicians recommending through offers inherently endorse the recommendation more weakly than those using other formats. The language of offers (e.g., *do you want; would you like*), highlight the role of patient preferences, rather than medical necessity, in the final treatment decision. As an action, offers locate the impetus for the recommendation with the patient, regardless of whether what is being treated was volunteered as a concern by the patient; emerged through physician questioning; or was otherwise educed.

In (8), the patient presented with ear pain. During history taking, the physician inquired about nasal congestion. The patient, in response, claimed that she was *real stuffy*. Here, after recommending both an antibiotic (data not shown) and a decongestant (lines 1-2), the doctor offers a nasal steroid spray (lines 5-7). This is framed as conditional, but since the patient has already asserted being *real stuffy* it carries the effect of a current recommendation. In addition, the offer invokes the patient's symptom using a similar formulation *really stuffy up your nose*.

(8) US

- 1 DOC: And uh: for your congestion .hh I
 2 would recommend taking Sudafed.
 3 (.)
 4 PAT: Sudafed?=
 5 DOC: =An:d I can >if you'd li:ke< I can give you uh-
 6 uh: **sample of uh nasal steroid spray, if you're**
 7 **also really stuffy up you[r nose,**
 8 PAT: [O:kay.
 9 DOC: [You want that too?,=
 10 PAT: [Uh huh,
 11 PAT: =Ye[:s:.
 12 DOC: [Okay °great.°

At its core, the offer is *I can give you a sample of a nasal steroid spray*. The modal auxiliary *can* orients to the decision as conditional, which is in direct contrast to pronouncements which typically rely on auxiliaries such as *will* or *going to*. The restart of the turn with *if you'd like* highlights the occasioned nature of this recommendation by pointing to the patient's potential desire as the rationale for his offer. Consider that a pronouncement format version might be *I'm*

going to give you a sample of a nasal steroid spray, and a suggestion version might be *You could try a sample of a nasal steroid spray*. The proposal version might be *We could try a nasal steroid spray*. While these are plausible, each action highlights something different. The action format relied on here highlights the patient's role in the treatment decision.

In (9) the patient presented with arm pain for which steroid injections were recommended. However, as the physician notes at line 5, the three injections need to be spaced at least a month apart, which suggests that the patient may still have pain during this period. In this context the physician offers a *stronger pain killer* (line 9).

(9) UK

- 1 DOC: I=er f- frankly there's no progress at all yet.
- 2 PAT: [N o.]
- 3 DOC: [But I can] give you up to three injections.
- 4 PAT: Uh huh?
- 5 DOC: But but I can't give them (0.3) closer than a month
- 6 [apart.
- 7 PAT: [They're a month apart. Right, that's [fair enough?]
- 8 DOC: [**Would**]
- 9 **you like me to give you a stronger pain killer.**
- 10 PAT: [f you've got one [please,]
- 11 DOC: [Yes.] I have.

Here the design of the turn highlights patient's role in occasioning this recommendation. With "Would you like", the physician places full responsibility for the treatment decision on the patient's desire. He orients to the recommendation as contingent on the patient's confirmation of

a desire (provided at line 10). This formulation stands in contrast to others such as *I would like to give you a stronger pain killer* -- in which the physician assumes responsibility for initiating the recommendation -- or *I'll give you a stronger pain killer* -- in which the physician assumes both responsibility for initiating and deciding on the treatment plan. Instead, with *Would you like me to give you a stronger pain killer* the physician treats the relevance of a stronger pain killer as a solution to the emerging problem that his proposed treatment will leave the patient in pain temporarily until its full effectiveness is reached.

As noted with respect to Extracts 8-9, the particular significance of offers lies in the physician's abdication of deontic responsibility for both initiating the recommendation and deciding on it. In pronouncements, physicians retain responsibility for both the treatment's instigation and decision. With suggestions, physicians abdicate only responsibility for making the decision but retain responsibility for their recommendation. Finally, in making a proposal, physicians claim responsibility for instigating the recommendation but share with patients the responsibility for the final decision. This could explain why offers, like proposals, are more frequently resisted than suggestions and pronouncements: 30% of offers are resisted.

Pronouncements, suggestions, proposals and offers all constitute *on-record* recommendations. Each involves the doctor overtly promoting a patient's particular course of action. In both the US and UK data the basic design and function of these directives appear to be the same despite the fact that pronouncements are significantly *less* common in the UK, and proposals and offers are significantly *more* common there. These dimensions are summarized in Table 3.

Table 3 about here

Although all of these directives involve the physician making a recommendation and place the patient in the position of accepting or rejecting that recommendation, the action types reveal different stances towards the recommendations being made. Moreover, with each action type, physicians highlight the recommendation as differentially situated in epistemic and/or deontic space. Specifically, pronouncements draw attention to the treatment decision as already determined. In presenting the decision as definitive, physicians retroactively assert epistemic security in the correctness of the medical judgment that informs it. Additionally, the physician creates a relatively large, though not insurmountable, barrier to resisting the recommendation. In this way, the epistemic dimension of the cultural authority of medicine can shade into the exercise of deontic authority. In contrast, suggestions highlight the optionality of the recommendation being provided. Through this format, patients are constituted as the final arbiter of the treatment's implementation. This eschewal of deontic authority by physicians makes the recommendation hearable as, at best, made with reservations and, at worst, unnecessary. With proposals physicians highlight the speculative nature of the medication being recommended. A recommendation can be speculative due to an environment of diagnostic, treatment, or etiological uncertainty. This context of lowered epistemic security translates into formulations that, in turn, lower the overt deontic authority, adopting a stance that the onus of the decision is shared by doctor and patient. Finally, offers, with their frequent reference to patient wants or needs, position the physician's recommendation as occasioned by the patient. In framing the

recommendation as responsive (even if it is not actually), physicians adopt an epistemically agnostic stance to the necessity of the medication, and with it a corresponding abdication of deontic authority for its provision.

The vast majority of recommendations in our dataset take the form of one of the overt directive action types we have just described. There remains a single smaller category of recommendations -- assertions -- to which we now turn.

Assertions

In our final category of treatment recommendations, recommendations are made through the assertion of some generalization about a treatment's benefit, *implying* a recommendation without proffering a directive. Assertions, therefore, sit at the boundary between information-providing statements and recommendations. Although they are not directives, they can carry the force of a recommendation because they leverage the epistemic authority of the physician into the deontic force of a recommendation through a stepwise process of inference. Typically this involves some generalization about treating the illness. At the same time, however, it is possible that they can be treated as merely providing information about the condition without actually recommending treatment, thus negating the relevance of acceptance by the patient for this treatment (Heritage & Sefi, 1992; Silverman, 1997b; Toerien, in press). In these data, assertions are responded to less frequently than other recommendation actions (78% vs. 87%); however, multivariately we found no statistical difference (recall Table 1). The rationale for including them as recommendation was that they are responded to as such over 3/4 of the time in primary care.

There is again a statistical difference in the frequency of assertions as recommendations in the US versus UK national context [$\chi^2(1, N = 697) = 20.49, p < .001$]. In the UK, assertions were comparably frequent to other recommendations (16% of recommendations, n=64) whereas in the US, assertions are rarely provided, but with equal frequency to offers -- 5% (n=16). Assertions include *Sometimes what helps is using a little bit of cortisone cream; Muscle relaxants are a very good choice in this type of pain; There are anti depressant medications that would work very good for you; or There is a medication and we have it here.* Across these brief illustrations we see that there is an abstract identification of a treatment for the patient's condition. In this context, the physician can make the connection between the patient's condition and the treatment more or less explicitly, and can take a stance that is stronger or weaker towards the utility of the medication.

In (10), the physician has diagnosed bacterial vaginosis. Across lines 1-3, he contrasts this with a yeast infection. At line 7 he offers a recommendation using an assertion: "There is medication."

(10) US

1 DOC: .hh Unlike thee other: uh:m yeast infection_ (.)

2 <where: they give you uh lot of=uh:> white discharge,

3 but it isn't- there's no smell to it.

4 PAT: Right, ((nod))

5 DOC: [.hh °Yeah.°

6 (0.3)

7 DOC: **There is medication. and we[: have it here.**

8 PAT: [Okay:,

9 (.)

10 DOC: [Uh-

11 PAT: [Okay £that's g(h)(h)ood.

The assertion action is less coercive of patient response than other actions, providing patients with significant latitude in accepting, rejecting, or not responding at all. As mentioned earlier, patients do respond roughly 10% less frequently to recommendations delivered through assertions in contrast with other recommendation actions. Although rates of *resistance* are comparable to resistance to pronouncements and suggestions, patients are less likely to *accept* recommendations that are made through assertions (16% vs. 33%, combined across the other action types [$\chi^2(1, N = 615) = 9.14, p < .01$]). It is possible that delivering a recommendation as an assertion leads to a lower likelihood of acceptance, but it is also possible that when patients indicate an unwillingness to accept the recommendation, physicians are more likely to use assertions.

Indeed, physicians consistently rely on assertions when patients have been resistant to something related to treatment or have indicated an alternative expectation or desire for treatment. In (10), the patient delayed coming to the physician for two months, which already suggests a belief that treatment is unnecessary or unavailable. The presentation is also of a mild condition. She states that the vaginal odor is abnormal but has no other complaints regarding the condition -- no itching or discomfort. Rather, she cites her sister as prompting her to come in on the basis that the condition could cause future reproductive problems. Thus, when the physician broaches treatment, he does so in an environment where it is unclear how receptive this patient will be. The stress on the copula *is* implies the physician's understanding that the patient may not have anticipated a medication solution (Bolinger, 1989; Ladd, 1980; Stivers, 2005a). And the

assertion only minimally proposes treatment, giving no medication name, no endorsement and stating no need to use it. Only after the patient's lack of uptake at the end of "medication." does the physician push very slightly with *and we have it here*, thus suggesting the ease of accepting the medication. This comes close to offering the medication but stops just short of that action, again leaving it to the patient to take it up (or not).

In (11), the patient presents with upper respiratory tract symptoms. After the exam, the physician does not offer a diagnosis but does recommend cough medicine using a pronouncement *So we getchu some cough medication* (data not shown). In response, the patient accepts with *Okay* and then launches a request that we see in lines 2-4/6. This request is denied on the basis that she has a cold/cold symptoms (lines 8, 10-11). After some delays as the physician is writing, the doctor then provides his recommendation for Actifed, a combination antihistamine/decongestant that is hearable as an alternative to the antibiotic but complementary to his previously recommended cough medicine.

(11) US

1 DOC: Mka::y, an' [and getchu some-

2 PAT: [(An' you know there) uh maybe prescribe some

3 uh that (is it uh) ampicillin or- (.) something, f'r-

4 <amoxicillin?,

5 (0.4)

6 PAT: for infection, an then some thing for congestion?,

7 (0.2)

8 DOC: You don't have eh[h-

9 PAT: [Oh: (o[kay.)

10 DOC: [You have cold.

- 11 You have [cold symptoms. That's what you do.
- 12 PAT: [Oh.
- 13 DOC: ((writes in patient's chart)/(1.2)
- 14 DOC: °Yeah:°
- 15 (3.2)
- 16 DOC: °Yeah:° what=you have is uh: co:ld an' flu
- 17 like symptom. Muscle ache, body ache.
- 18 DOC: .hh And this () medication that w'll take care of
- 19 that's called uhm: (.) ^Actifed.
- 20 PAT: [((small nodding))
- 21 PAT: [Okay.
- 22 DOC: [It'll do both=thuh: runny nose ^and
- 23 thuh nasal congestio:n.

The assertion "And this () medication that w'll take care of that's called uhm: (.) ^Actifed." is offered in a context where the patient's request has effectively been denied. Like (10), here the physician approaches a subsequent recommendation cautiously. The assertion format manages this both by placing minimal pressure on the patient for response and by working to assess patient receptiveness to the medication. In this context, despite the physician not having provided the medication the patient asked for (amoxicillin), the patient accepts the Actifed (lines 20-21) with a nod and "Okay."

Because they are at the boundary of recommendations *per se*, assertions are uniquely positioned within the range of action types we have discussed for delivering treatment recommendations. The action certainly varies in strength. For instance, some involve a minimal statement of fact (e.g., *There is medicine; Sometimes what helps is. . .*). Other assertions invoke

the fit of the statement of fact to the circumstances of the patient's symptoms (e.g., *This medication will take care of that; Muscle relaxants are a very good choice in this type of pain*); and still others positively evaluate the benefit of the medication for this particular patient, while nonetheless deploying the generalization to imply the recommendation (e.g., *There are anti depressant medications that would work very good for you*). Despite these differences, assertions cohere as a category in *implying* a recommendation without overtly *preferring* one.

This off-record form of recommendation is typically used in contexts where the patient has placed some barrier to the physician's recommendation -- either through pre-emptive resistance or an indication of an alternative medication preference -- or where the physician is approaching a multi-step treatment plan. In both scenarios physicians have justification for approaching the treatment recommendation cautiously, and assertions are well suited to this environment. Assertions allow physicians to assess patient receptiveness to a given medication while providing them with maximal flexibility in terms of response. Assertions are not coercive of uptake in the way that overt directives are. They provide statements of fact that, however embellished, can be simply acknowledged, and thereby effectively passed over, by patients as "merely informative" or, alternatively, they can be accepted by patients as recommendations.

Discussion

In primary care, patients present with medical concerns in the interest of receiving a diagnosis and, ideally, a treatment plan from an expert in the evaluation and treatment of patient signs and symptoms. Physicians' medical authority, specified as their epistemic and deontic authority to diagnose and prescribe, creates an asymmetry that may be presumed to exist between physician and patient. When physicians recommend treatment, they adopt a position of

greater epistemic and deontic authority relative to the patient. However, the action of the recommendation, shaped by the specific contingencies of the medical encounter, may encode this authority to a variable extent.

Pronouncements may be considered the most direct expression of medical authority in treatment recommendations because they straightforwardly combine both epistemic and deontic dimensions of physician authority in a single action. Other formats abrogate one or another of these dimensions. For example, in suggestions, physicians maintain epistemic authority over the recommendation but relinquish deontic authority. In proposals physicians partially relinquish deontic authority in their invocation of patient participation in the recommendation; and they invoke reduced epistemic authority insofar as they present recommendations as speculative. In offers, the physician abdicates deontic responsibility both for making the recommendation and for acting on it. Finally, in assertions, physicians stand entirely on epistemic ground without overtly leveraging this authority into a directive for patient action. This analysis holds across both the British and the American corpora.

As we described earlier, whereas American physicians rely on pronouncements a clear majority of the time -- 65% -- British physicians deliver 55% of their recommendations using an alternative recommending actions. As both US and UK physicians rely on suggestions equally (21% vs. 24%, respectively), the difference is primarily located in the British physicians' significantly greater use of proposals, offers and assertions. We cannot offer a full account for this disparity here, but we can point to several directions for further consideration. First, as Bergen et al. (in press) observe, there is evidence that American patients are more accepting of prescription medication than British patients. This cultural context could enable physicians to

presume a level of acceptance that would lead to a greater reliance on pronouncements in American visits. Conversely, if British patients are more averse to prescription medication, physicians may anticipate this by relying less frequently on pronouncements and more frequently on offers and proposals. Second, there may simply be a stronger culture of shared decision making in England, permeating physician practice through medical training. This could, independently of patient behavior, lead to a greater reliance on treatment actions that highlight patient involvement. A third possibility is that the general cultural preference for intervention over watchful waiting in the American context may be associated with more assertive interventionist formats for treatment recommendations. Finally, we cannot, at this point, exclude the possibility that in the British context there happened to be more speculative treatment recommendations (increasing the number of proposals) and more occasioned recommendations (increasing the number of offers).

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ⁱ It should be noted that for purposes of coding, the recommendation for an ice-pack would not have been included; only the recommendation for pain treatment would have been. However, qualitatively we can nonetheless observe that the pronouncement action is applied to both elements.