Research into communication between doctors and patients: applying conversation analysis

"Languages, Media & Communication" Constituent Theme Seminar, Hong Kong University, 12th December 2006

Paul Drew
University of York, UK
wpd1@york.ac.uk

Conversation Analysis (CA) has developed over the past 40 years as an inter-disciplinary field with a profound impact in linguistics, sociology and communications. 'CA' is in some respects misleading – it is a perspective and method applicable to language use in any kind of interaction. Recent research using the methods of CA to investigate doctor-patient interaction has made real breakthroughs in our understanding of the communicative dynamics of medical consultations. The research findings, by groups in the US, Finland as well as the UK and elsewhere, reveal much about how some of the core stages in the primary care consultation are managed (for instance how patients present their medical condition to doctors, how doctors manage the examination of the patient and then give their diagnoses). These research findings have significant implications for medical decision-making, patient resistance and concordance with treatment recommendations etc. – implications which in some cases have applications for medical practice and training. I'll review how this area of research has developed out of CA studies of language use in interaction, what seem to be the advances achieved through this area of 'applied' CA research, and also what are some of the limitations in the application of CA to investigating medical interactions.

- **Key concepts - activity, turn design and sequence patterns**

  I'll introduce three basic and interrelated concepts underlying CA - action, turn design and sequence. The aim is to outline what I think CA is good at - its particular strengths in showing *how actions are designed or formatted*; *identifying sequential patterns*; and identifying the location in talk - *sequential environments* - of certain practices.

- **Problem presentation, and requesting treatment**

  Taking up the third of those activities - requesting - although (primary care) visits to the doctor are in a general sense requests (for treatment), patients don't usually overtly make requests. They present their problem/describe their symptoms. Their problem presentations are also a form of turn design; and I'll briefly outline some of the features of the design of problem presentations. The design of problem presentations by 'normal' patients contrasts, in certain respects, with their design by 'frequent attenders' ('heart sink' patients).

- **Associations between turn formats and communicative outcomes**

  One of the limitations of CA, at least from the perspective of medical research, has been our reluctance to get into statistics. There are many reasons for this; but recently, detailed qualitative analyses have supported results which can be quantified. These link, for example, the format of the doctor's opening question (problem elicitation) with patient satisfaction; the format of their final enquiry with the extent to which patients raise 'other' matters which concern them; and opening enquiries with 'chances of success' (though this in a rather unusual circumstance). A final example: the format in which doctors report to patients what they are seeing/feeling/finding during the medical examination has been shown to be related (statistically) to overcoming patient resistance (relevant to antibiotic prescription)

- **Implications for practice?**

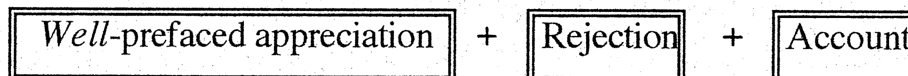
  Another limitation of CA research is that, generally, the aim of our investigations is to uncover patterns, practices, devices etc. for doing things and for 'meaning' what we intend to mean, in talk-in-interaction. Our findings are *non-evaluative*; so it's often difficult for us to recommend anything like 'best practice'. More specifically, it's sometimes difficult to see what practical consequences or recommendations for (medical) practice arise from our analytic results. This happens, of course, in medical science; eg. the first risk-factor gene associated with Alzheimer's, ApoE4, was identified in 1993 - but after more than a decade still no way has been found to take therapeutic advantage.

1. CA, social action, sequence, and intersubjectivity

```
#1 [NB:II:2:9] (From Drew 2004)
 1  Emm:  ...↑PA:R:T of ut.w:Wuddiyuh ↑DOin.
 2            (0.9)
 3  Nan:  What'm I do[in?
 4  Emm:              [Cleani:ng?=
 5  Nan:  =hh.hh I'm ironing wouldju belie:ve ↑tha:t.
 6  Emm:  Oh: bless it[s ↓hea:rt.]
 7  Nan:              [In  f a :c]t I: ire- I start'd ironing en I: d-
 8        I: (.) Somehow er another ironing just kind of lea:ve me:
 9        co:[ld]
10  Emm:     [Ye]ah,
11            (.)
12  Nan:  [Yihknow, ]
13  Emm:  [Wanna c'm] do:wn 'av [a bi:te'a] lu:nch w]ith me?=
14  Nan:                        [°It's  js] (      )°]
15  Emm:  =I got s'm beer'n stu:ff,
16            (0.3)
17  Nan:  ↑Wul yer real sweet hon: uh:m
18            (.)
19  Emm:  [Or d'y] ou'av] sup'n [else °(      )°
20  Nan:  [L e t-]  I : ]  hu.  [n:No: i haf to: uh call Roul's mother,h I
21        told'er I:'d call'er this morning I [gotta letter] from'er en
22  Emm:                                      [°(Uh huh.)°]
23  Nan:  .hhhhhh A:nd uhm
24            (1.0)
25  Nan:  .tch u.-So: she in the letter she said if you ca:n why (.)
26        yihknow call me Saturday morning en I jst haven't. h
```

```
#2    [SBL:1:1:10:14]
 1  Ros:      And uh the: if you'd care tuh come over, en visit u
 2            little while this morning I'll give you [cup a'coffee.
 3  Bea:                                              [ khhh
 4  Bea: +    Uhhh-huh  hh W'l that's awf'lly sweet of you I don't
 5       +    think I can make it this morning,  hheeuhh uh:m (0.3)
 6       +    'tch I'm running en a:d in the paper 'nd an:d uh  hh I
 7       +    have to stay near the pho::ne,
 8  (R):      (°Ya[h°)
 9  Bea:          [ hhhh
10  Ros:      Alright?=
11  Bea:      = hh A[nd
12  Ros:            [Well eh sometime when you are free, h give me
13            a call becuz ah'm not always ho:me.
```

A turn design/structure for declining (invitations):



```
Nan:   ↑Wul yer real sweet hon: uh:m
              (.)
Emm:   [Or d'y] ou'av] sup'n [else °(      )°
Nan:   [L e t-]  I : ]  hu.  [n:No: i haf to: uh call Roul's mother,
```

```
#3    [Doctors out-of-hours calls:1:1:13] (From Drew 2006)
 1   Doc:         Hello,
 2                (.)
 3   Clr:          Hello:, eh: ((omitted))
 4   Clr:         (    ) is that the doctor on c[all (       )
 5   Doc:                                      [Yes it is, Doctor ((omitted))
 6                speaking, hh!=
 7   Clr:         =Eh: my wife has uh: just fai:nted, ˙hh She:'s (0.7) been
 8                to:: the doctor's a:nd eh: our doctor at ((omitted)) gave
 9                'er: ˙hh some painkillers because 'e said she had a:um: a
10                virus in the bowel,
11                (0.2)
12   Doc:         R:ight,
13   Clr:         Eh: she's been in be:d, and she had a sort've fainting spell
14   Dc?:         ˙hhhh
15   Doc:         [((gulp))
16   Clr:         [She wen' u- into a cold sweat. an:d blacked
17                ou[t for a(b-) period.]
18   Doc:           [˙h  h  h  h  h  h  ]
19   Doc: 1->     hhHow long was tha:t,
20   Clr: 2->     E:hm, tha'was abou' half an hour ago,
21   Doc: 3->     How long was she actually blacked out [for, though.
22   Clr:                                           [E:hm I'm not
23                quite sure 'cause (.) I went in a bit later and she told me,
24                t˙hh a:nd she: asked me to:: see 'er tuh the toilet,
25
```

```
#4    [ENT Oncology]
 1   Dr:          An' then he'll get you back after tha:t, (0.3) to star:t your
 2                treatm'nt
 3                     (0.9)
 4   Pt:   1->    Uh yeah 'n how long d'z trea'm'n last Doctor,
 5   Dr:   2->    Between four an' six weeks,
 6                     (.)
 7   Pt:   3->    No I mean ih-ih-ih in-in-in (.) ih-in timewi:se ü- per
 8                da(:y.=
 9   Dr:          =OH:. (.) Ten minutes,
10   Pt:          'Zat all?
11   Dr:          ihYeah.
12                     (0.5)
13   Dr:          Very quick
14                     (0.6)
15   Pt:          W'l oo-why can't they give you fu:ll treatment in one day
16                then?
```

2 Problem presentation; absence of requests, and frequent attenders

```
#5     [Frozen shoulder: Heritage and Robinson 2006]
 1  Doc:      So what can I do for you today.
 2  Pat:      W'll- (.) I have (.) som:e shoulder pa:in
 3            a:nd (0.2) a:nd (.) (from) the top of my a:rm. a:nd (0.2)
 4            thuh reason I'm here is because >a couple years
 5            ago< I had frozen shoulder in thee other a:rm, an'
 6            I had to have surgery. and=(   ) this is starting to get
 7            stuck, and I want to stop it before it gets stuck.˙hhhh
 8  Doc:      A[d h e : s i]ve capsuli[tis.]
 9  Pat:       [I'm losing]           [Ri:gh]t.
10  Pat:      I'm losi:ng (0.4) range of motion in my a:rm.
```

```
#6     [Questionable lesion: from Heritage and Robinson 2006]
 1  Pat:  +  I'm here on false pre- pretenses. I think.
 2  Doc:     [Yes.
 3  Pat:     [ehh! hih heh heh heh!
 4           ((Five lines omitted))
 5  Pat:  +  I asked my husband yesterday 'cause I could feel: (0.8) (cause)
 6        +  I: could feel this li'l mo:le coming. An:d: uh (0.5) (he) (.) I:
 7        +  hh thought I better let you know-<uh well I asked my husband 'f
 8        +  it was in the same place you took off thuh (0.5)  °thee (mm)
 9           thee:°(  [                          )
10  Doc:              [That's why you've come in be[cause of the mo:le.
11  Pat:                                           [that's why I ca:me, but=
12  Doc:     =H[ow long 'as it been-]
13  Pat:       [t h i s  m o r ning-] I: I didn' I hadn't looked yesterday
14        +  he said it was in the same place but ˙hh but I: can feel it
15        +  nah- it's down here an' the other one was up here so I don't
16        +  think it's: th'same one at a:ll.
17  Doc:     Since when.
18           (0.8)
19  Pat:     Y(h)ea(h)h I(h) just felt it yesterday 'n
20  Doc:     Does it hurt?
21  Pat:     No?
22           (.)
23  Pat:  +  No it's just a li:ttle ti:ny thing bu:t=I (.) figured I
24        +  sh(h)ou(h)ld l(h)et y(h)ou kn(h)ow .hhh i(h)f i(h)t was (on)
25        +  the same pla:ce, b't
26  Doc:     So when you push [on it it doesn't hur[t.
27  Pat:  +                   [(Right.)            [No it's
28  Pat:  + just a little- li:ttle tiny skin: [(tag) really.
29  Doc:                                      [I: (.) see=
30  Doc:     =Yeah it's different than whatchu had be[fore.
31  Pat:                                             [Uh huh.
32  Doc:     Your scar is up here,
33  Pat:  +  Y eah that'[s what I figured (an-)
34  Doc:                [An'
35  Doc:     An' this is down below.
36  Pat: + . hh When he s- When he told me it was in the same place I
37           thought Uh: Oh: I better ca:ll a(h)nd te(h)ll yo(h)u .hhh
38  Doc:     Ri:ght. (.) That's- I'm <ve:ry gla:d that you uh> did that.
```

```
#7    [Out-of-hours calls:2:1:8]
 1   Doc:          .hhHello:?
 2   Clr:   +      Hello? I'm wondering if a doctor could call and see ((name))
 3                 please
 4   Doc:          .hh R:- could you tell me a bit more about it?
 5                 It'[s doctor [((name)) speakin[g.
 6   Cal:             [(I)      [((name))        [Yes. It's only ten months old,
 7   Doc:          Mm hm:
 8   Cal:          A:nd ih-(is) jad- (0.2) 'is got diarrhea for over (.) six
 9                 days...
```

Four features of patients' problem presentations relate to a balance between the legitimacy (doctorability) of patients' concerns, and not over-reacting ('normalising') - where over-reacting might have connotations of imagining the problem etc. - are:

- Noticings, and recommendations to visit, often reported as being made by third parties
- Descriptions are not, to begin with, overdramatic
- Temporality of symptoms
- Atypicality of symptoms; and a prior history (in Heritage and Robinson's terms, balancing troubles resistance with out-of-the-ordinary)

```
#8    [802: Frequent attender] (from Ariss 2005)

 1   Dr:           So? How are you doing,
 2   Pt:    +      Well |I'm doing shocking| >doc-=? I can't sleep on a night
 3                 time, got a real bad cough un< (.) .hh I wa:ke up un I'm (.)
 4                 I've stopped breathing more or less un
 5                       (.)
 6   Dr:           M[m::
 7   Pt:           [When I do cough anythink up
 8   Dr:           Mm
 9   Pt:           It's- it's- thicker than the thickest you could imagine
10   Dr:           So it is sticky mucus that i[s coming out
11   Pt:                                       [Oh it-=REAL thick yeh
```

```
#9    [Request format: 201 (Frequent attender)] (from Ariss 2005)

 1   Dr:           Er::m: (0.3) °° Yeh what's been happening°
 2   Pt:   +       |↑We need to| make me tummy stop hurting plea::se.
 3   Dr            Alright
 4                       (0.4)
 5   Pt:           Hm hm cuz it does. (.) ERM .I've been back tuh thuh hospital
 6                 an' they've said, t[hat it's fine .hh
 7   Dr:                              [Yeh
 8                       (.)
 9   Pt:           Just got a couple uh gall stones...
```

3 Associations between formats and 'outcomes': reviewing the medical record, and eliciting the patient's presenting concerns - open vs closed questions (and patient satisfaction) - Physician's opening question.

#10a [Boyd 1998: tympanostomy]

> "The information I have is he's six an'-=with a history of recurrent uh otitis and (1.0) uh I think 'e had previous tubes, (0.5) but according to the information we got from a doctor (Katz), (.) the pediatrician's office, (.) He has uh- (0.2) they I- I don't get any documentation of any problems at all in the last year"

In such cases, Boyd reports, the insurance company's medical reviewer indicates that there is a problem; by referring to what the documents show or do not show (here, they do not show any problems in the last year), the reviewer is formulating an inconsistency between the other doctor's recommendation, and the medical evidence in the case notes/paper trail. This is done by explicitly citing the documentation (notice the indications that the reviewer is displaying that he is looking at and reading from the documents). Initiating the review in a *collegial* format, by contrast, reviewers do *not* refer to or cite the documentation, but open directly by asking the child's doctor for information about the case:

#10b ".hh Uh can you tell me something about this youngster?"

```
#11   [N:19:05] (from Heritage and Robinson 2006:484)
 1   Doc:  It's in your l:eft le:g, that's [botherin' ya.
 2   Pat:                                  [((3 nods))
 3   Doc:  You were running an' felt (a:/uh:) like=a ya got hit there,
```

```
#12   [From Heritage & Robinson 2006:95]
 1   Doc:       Alright. so having headache, an' sore thro:at .hh and cough
 2              with phle:gm for five da:ys?
 3   Pat:       [Mm hm:,
 4   Doc:       [.hhh Uh:m are you >bringing up< (.) >uh you know when<
 5              you [say you bring up thuh ph[le:gm
 6   Pat:           [O::range                [bro:wn an'=a (go:ld) tannish,
 7              ye:ah.
```

```
#13 [From Heritage & Robinson 2006:95]
 1   Doc:       Okay so this last time for three da:ys, .hhh an' you're
 2              having body a:ches,
 3   Pat:       Y[ea:::
 4   Doc:        [You're feeling we:ak, .hh uhm any other symtoms, right
 5              no:w=
 6   Pat:       =N:o: [it's just that I woke-
 7   Doc:             [Fe:ver::-
 8   Pat:       N:o uh no fever
```

```
#14   [Frozen shoulder: Heritage and Robinson, in press]
  1  Doc:     So what can I do for you today.
  2  Pat:     W'll- (.) I have (.) som:e shoulder pa:in
  3           a:nd (0.2) a:nd (.) (from) the top of my a:rm. a:nd (0.2)
  4           thuh reason I'm here is because >a couple years
  5           ago< I had frozen shoulder in thee other a:rm, an'
  6           I had to have surgery. and=(   ) this is starting to
  7           get stuck, and I want to stop it before it gets
  8           stuck.
  9           {(0.4)/˙hhhh}
 10  Doc:     A[d h e : s i]ve capsuli[tis.]
 11  Pat:      [I'm losing]            [Ri:gh]t.
 12  Pat:     I'm losi:ng (0.4) range of motion in my a:rm.
```

```
#15   [P3:64] (from Robinson and Heritage 2005:485)
  1  Doc: An' what can we do for ya today.
  2  Pat: .hh Well I was here on September=h twenty third because I had
  3       bronchial (.) an' I was put on z:ithroma[x.
  4  Doc:                                         [Mm hm,
  5  Pat: .hh thuh following: tuesday wednesday I had such a sore throat I
  6       could hardly swallo[w
  7  Doc:                    [Mm [hm,
  8  Pat:                        [.th I came i:n fo:r a culture an' it was
  9       negative.
```

4 Physical examination - on-line commentary

#16 [from Heritage and Stivers 1999: 1507-09] (The following extract involves a patient who has presented with continuing sinus problems, for which he has been taking medication. It's clear that the patient is persisting with his symptomatic complaints, until the doctor produces the online commentary in line 30-39 & 57, combined with idiomatic summaries, lines 62 & 66)

```
 1  Doc:     How are you feeling to[day:.
 2  Pat:                           [.hhhhh Better, hh[hhhhhh
 3  Doc:                                             [And your sinuses?
 4                (.)
 5  Pat:     Well they're still: they're about the same.
 6                (.)
 7  Doc:     About the sa:me? Okay. Why don't I have you sit up here for a
 8           second.
 9                (1.1)
10  Doc:     I gave you a lot of medicine over the la:st (0.5) (general)
11           month or so. fer your sinuses.
12                (0.4)
13  Doc:     But the heemobi::d and the vancena::se and then the
14           antibiotic. the augmentin.
15                (0.7)
16  Doc:     A::nd you should be noticing a pretty big difference.
17  Pat:     Compared to the first visit, (.) a lot.
```

18 (.)
19 Doc: O:[kay.
20 Pat: [It's still .hhh >you know< it's not a hundred percent.
21 .
22 .
23 . ((Talk about medications, moving to physical
24 examination, omitted))
25 .
26 .
27 Doc: Y:eah because that one you usually you need to take a little
28 bit lo:nger.
29 (3.4)
30 Doc: Well I don't see any fluid=your ears look goo:d.
31 (3.6)
32 Doc: This one does too:.
33 (5.6)
34 Doc: Let's see if we see any drainage
35 (.9)
36 Doc: Say ah::,
37 Pat: Ahh,
38 (0.2)
39 Doc: And that looks real good too:.
40 (0.8)
41 Doc: Are you having any real specific problems with the cou::gh,
42 or anything like that. >With your sinu[ses<
43 Pat: [Uh::(m) the only thing
44 every once in a while I get a- ( ) uh: a really wi:ld (0.2)
45 extreme tickle in my throat. And I:(ve) gotta cough cough
46 cough for: (0.2) seconds.
47 (.)
48 Doc: O[kay::
49 Pat: [And then I (.) clear my throat a couple of times and it
50 goes away,
51 (.)
52 Doc: O[kay
53 Pat: But it just reoccurs (0.4) >two a three< times a day.
54 Doc: °(Well) let's check your sinuses an' see how they look
55 today.°
56 (1.0)
57 Doc: That looks a lot better=I don't see any inflammation today.
58 (0.8)
59 Doc: G[ood.
60 Pat [(Good.)
61 (.)
62 Doc: That's done the trick.
63 (1.0)
64 Doc: So you should be just about o:ver it. I don't- (I'm) not
65 really (.) convinced you have an ongoing infection=it seems
66 like the augmentin really kicked °it.°
67 Pat: Good.
68 Doc: O:kay. (.) An' what else did we need to address your EKG:?

For a statistical account of the use of 'online commentary', its effectiveness in overcoming patient resistance, and the implications of this pattern for (inappropriate) antibiotic prescription, see Mangione-Smith et al. 2003

5 Treatment Decision Making

#17 [B1-112-353] (from Collins et al. 2005)
1 D: Er:m (1.2) how do you think you are with your diet now
2 P: hhhh —e::hh· (3.0) ^huh ·h-^h-he ·hh (0.7) I rea::ly h·-
3 don't know (0.4) eh-but again I've al::ways been high
4 [at tea time
5 D: [Hm — hm
6 D: Pk-·hh (0.3) do you think looking at your diet there's
7 anything (1.8) that really (.) you think's not quite as good
8 from the diabetic point of view (3.5) °you know we talked
9 about cakes and biscuits last time°
10 (2.5)
11 P: Not — not that I'm aware of
12 (0.3)
13 D: °Right° °°okay°°
14 D: One of the questions I think we have today (0.2) i:s

#18 [B1-119-338] (from Collins et al. 2005)
1 D: °°So we're gonna do the diabetic follow up°° °clinic°
2 *((looking at computer monitor))*
3 (5.0)
4 D: Okay I'm gunna set you target level two (0.6) er:: now
5 that (0.5) that is: um:: (0.5) result of some tests
6 (.)
7 P: Yeh
8 (.)
9 D: That we've >done from the nurse.< an we we >want ah- you< (.)
10 controlled to a certain level .hh (.)thuh most important test

#19 [B1-112-353] (from Collins et al. 2005)
14 D: One of the questions I think we have today (0.2) i:s (2.0)
15 your blood sugar is high
16 (0.2)
17 P: Ye[a
18 D: [it is better than it was last time
19 P: Yes=
20 D: =it's not as good as it has been (1.5) er:m if we look back
21 — to — (2.8) august (0.4) the year before
22 P: Yea
23 D: It was a bit better down at (eigh[t) but it's higher=
24 P: [Hm — hm
25 D: =than it has been ·h and ideally we'd like it down at seven
26 D: …·hh we know that down into seven (0.9) helps to protect you
27 quite dramatically ·hh against heart attacks (.) against
28 strokes and against all the complications in your feet and
29 your eyes of diabetes (4.0)

```
#20    [B1-119-338] (from Collins et al. 2005)
10 D:       … controlled to a certain level .hh (.)thuh most important
11          test that we do is the HbA1c
12 P:       ((nods))        (0.9)
13 D:       Have yuh heard of this one [before]
14 P:                                  [ y e s] this is the: er
15               (1.3)
16 P:       Erm
17               (2.0)
18 P:       The actual control of the: er
19 D:       Tck yeh it give[s an indication of] how we[ll      y]our=
20 P:                      [ uv  (the)  sugar ]       [(uh yeh)]
21 D:       =diabetes is con[troll]ed
22 P:                       [y e s]
23          (.)
24 D:       It's actually ah- measuring how much glucose is combined with
25          the red blood cell pigment
26 P:       °(Yes)°
27 D:       And because the red blood cell pigment is locked up in the red
28          cells which .hh have a half life of a-(.)pproximately six to
29          eight weeks .hh (.) it gives us an averaging out figure over
30          that period=
31 P:       =That's right (.) yeh
32 D:       .hhh now:? yours is nine point six
33               (0.4)
34          an[d that is] hi:[g h ::].
35 P:         [ Y e s : ]    [that i]s high=
36 D:       =Y[eh]
37 P:         [Ye]h
38 D:       I would like tuh see that somewhere near:: (.) sih- between six
39          and seven percent
```

6 Diagnostic delivery:

First the 'default' format of *plain assertion* (#21); then explicating the evidence for the diagnostic conclusion (#s22 and 23), a format which provides greater scope (statistically) for patients to follow up, question etc. doctors' diagnoses.

```
#21   [from Peräkylä 1998] (Dr has listened to the patient's chest)
 1   Dr:          Let's listen from the back.
 2                    (9.3) ((Pt breathes in and out, Dr listens))
 3   Dr: +        That's already proper bronchitis.
 4   Pt:          It is[hh
 5   Dr:               [It is.
```

```
#22   [from Peräkylä 1998] (Dr has just examined Pt's foot)
 1   Dr:          Okay:. .h fine do put on your,
 2                     (.)
 3   Dr:  1->     the pulse [can be felt there in your foot so,
 4   Pt:                    [Thank you.
 5   Dr:  2->     .h there's no, in any case (.) no real circulation
                  problem
```

```
#23   [from Peräkylä 2002]
 1   Dr:       (But but) I really can feel these with my fingers
 2             here it is you see [(   ) this way, a very tight=
 3   Pt:                          [Yes,
 4   Dr:       =muscle fibre,
 5             (1.0)
 6   Pt:       Yes a little th[ere<
 7   Dr:                      [IT GOes here from the top but
 8             it probably gives it (.) a bit further down then,
 9             (1.0)
10             ((Dr withdraws her hands from P's back))
11   Dr: 1->   As tapping on the vertebrae didn't cause any pain
12       1->   and there aren't (yet) any actual reflection symptoms
13       2->   in your legs it corresponds with a muscle h (.hhhh)
14       2->   complication so hhh it's only whether hhh (0,4) you
15       2->    have been exposed to a draught or has it otherwise=
16   Pt:       =Right,
17   Dr: 2->   .Hh got irrita[ted,
18   Pt:                     [It couldn't be from somewhere inside then
19             as it is a burning feeling there so it couldn't be
20             in the kidneys or somewhere (that p[ain,)
21   Dr:                                          [Have you
22             had any tr- (0,2) trouble with urinating.=
23             =a pa- need to urinate more frequently or
24             any pains when you urinate,
```

7 Closing: Is there anything/something else I can do for you?

Heritage et al. (2006) designed an intervention study to test whether doctors' closing questions - the specific linguistic design of those questions - had any impact on the expression of patients' so-far *unmet* concerns.

Intervention
After the physicians had performed four visits in a normal fashion, they were randomly assigned to one of two interventions. Both interventions instructed them to ask if the patient had additional concerns, shortly after the presenting concern had been established. Each physician was given a videotape that described, explained and exemplified the communication intervention to be performed. The tape required the physician to open the visit in his or her usual way and, once the presenting concern was determined, to ask "Is there anything else you want to address in the visit today?" (ANY condition) or "Is there something else you want to address in the visit today?"(SOME condition).

Positive responses to the intervention question from patients who described more than one concern on the pre-visit survey:
Some vs. Any

	2+ survey concerns
Some	71.4%
Any	33.3%

8 Limitations

There are, I think, six principal limitations in the application of CA to investigating medical interactions, which very briefly are as follows:

1. CA's enquiries are directed at investigating and identifying general *practices* underlying our communicative competencies. It's not clear that these practices etc. have any distinctive place, or functions, in medical interactions.

2. Not all the aspects of medical interactions in which medical professionals might be interested are amenable to the kind of analytic treatment I've been overviewing here.

3. The data for CA analyses are the recordings of (medical) interactions. But very often information which may be necessary to discover certain patterns comes from interviews (see for example Heritage et al. 2006, and §7 above).

4. Coding and quantification: medics expect quantified results based on big data samples. The coding schemes used to generate such results are not (usually) compatible with CA's approach.

5. It's often/generally not clear how findings about communicative practices and patterns, eg. in doctor-patient interactions, can be applied eg. as recommendations for improving medical practice. Of course this is true also of research in medical science; eg. the first risk-factor gene associated with Alzheimer's, ApoE4, was identified in 1993 - but after more than a decade still no way has been found to take therapeutic advantage. But I'm not sure medics are willing to be as patient with communication research!

6. Relating outcomes to a (single) communicative pattern or practice. The example of the different outcomes associated with doctors' closing enquiries "Is there *anything*...?" vs "Is there *something*...?" (the latter being much more effective in eliciting patients' unmet concerns) is rather unusual. Mostly outcomes are multi-factor dependant - it's difficult to demonstrate a connection between a communicative form and an outcome.

References

Ariss,S.M.B. (2005) *Exploring interactions between General Practitioners and frequently attending patients*. Unpublished PhD dissertation, University of York.

Boyd,E.(1998) Bureaucratic authority in the 'company of equals': the interactional management of medical peer review. *American Sociological Review*, 63:200-224.

Collins,S., Drew,P., Watt,I. & Entwistle,V. (2005) 'Unilateral' and 'bilateral' practitioner approaches in decision-making about treatment. *Social Science and Medicine*, 61:2611-2627.

Drew,P. (2004) "Conversation analysis", in Fitch,K. and Sanders,R. (eds.) *Handbook of Language and Social Interaction*, Lawrence Erlbaum, 71-102.

Drew,P. (2006) Mis-alignments between caller and doctor in 'out-of-hours' telephone calls to a British GP's practice. In Heritage.J. and Maynard,D. (eds.) *Commication in Medical Care: Interaction between Primary Care Physicians and their Patients*, Cambridge, Cambridge University Press: 416-444.

Drew P, Chatwin J, & Collins S. Conversation analysis: a method for research into interactions between patients and health-care professionals. *Health Expectations*. 2001;4:58-70.

Heritage,J. & Stivers.T. (1999). Online commentary in acute medical visits: a method of shaping patient expectations. *Social Science and Medicine* 49: 1501-1517.

Heritage,J. & Maynard,D. (2006) *Communication in Medical Care: Interaction between Primary Care Physicians and Patients*. Cambridge, Cambridge University Press.

Heritage,J. & Robinson,J. (2006) The structure of patients' presenting concerns: physicians' opening questions. *Health Communication*, 19: 89-102.

Heritage,J., Robinson,J., Elliot,M., Beckett,M. & Wilkes,M. (2006) Reducing patients' unmet concerns in primary care. Unpublished paper, UCLA.

Mangione-Smith,R., Stivers,T., Elliot,M., McDonald,L. & Heritage,J. (2003) Online commentary during the physical examination: a communication tool for avoiding inappropriate antibiotic prescribing. *Social Science and Medicine*, 56:313-320.

Maynard,D. and Heritage,J. (2005) Conversation analysis, doctor-patient interaction and medical communication. *Medical Education*, 39: 428-435.

Peräkylä,A. (1998). Authority and accountability: the delivery of diagnosis in primary health care. *Social Psychology Quarterly*, 61: 301-320.

Perakyla,A. (2002) Agency and authority: extended responses to diagnostic statements in primary care encounters. *Research on Language and Social Interaction*. 35: 219-247.

Robinson,J. & Heritage,J. (2006) Physicians' opening questions and patients' satisfaction. *Patient Education and Counselling*, 60: 279-285.

Stivers,S. (2006) Treatment decisions: negotiations between doctors and parents in acute care encounters. In Heritage.J. and Maynard,D. (eds.) *Commication in Medical Care: Interaction between Primary Care Physicians and their Patients*, Cambridge, Cambridge University Press: 279-312.

Transcription conventions

Co:/Pt:	speaker labels (Co: = counsellor; Pt: = patient)
=	links talk produced in close temporal proximity, ie. 'latching'
° °	encloses talk which is produced quietly
<u>underline</u>	used to mark words or syllables which are given special emphasis
s:::	extending or prolonging the sound; the more colons, the longer the sound
.hhh	inbreath, each 'h' indicating one tenth of a second
hhh.	outbreath, each 'h' indicating one tenth of a second
(h)	indicates aspiration, usually laughter ,while speaking
[ ]	encloses talk produced in overlap i.e. when more than one speaker is speaking
(word)	parentheses indicate transcriber doubt
(this/that)	alternative hearings
((description))	description of what can be heard, rather than transcription e.g. ((shuffling papers))
cu-	the hyphen (dash) indicates sound'cut-off'
(0.2)	silence in seconds
(.)	silence of less than two tenths of a second
^ or ↑	mark a raise in pitch; reverse arrows indicate fall in pitch