

*John Heritage***Introduction**

The objective of this chapter is to describe some of the ways in which the issue of cognitive process surfaces in talk as an explicit, or relatively explicit, matter that the participants are dealing with in the talk itself. I will begin with some brief comments on how participants represent cognitive process in their descriptions of everyday experiences and events. Subsequently I will look at the embodiment of cognitive process in interaction, focusing on the response particle *oh*, which is virtually specialized to the task of this embodiment. I will conclude with some basic observations about the treatment of cognition in the domain of ordinary interaction.

**Portraying cognitive process**

While attention, cognition and memory are central topics of psychology, they can also be matters of significant concern in the way events are portrayed by those who report them. Representations of cognition, and especially of cognitive process, are commonly driven by a desire to evidence the normality and reasonableness of the objects of cognition (Garfinkel, 1967; Sacks, 1984; Jefferson, forthcoming).

Consider the following interaction in which a mother is presenting her eleven-year-old daughter's upper respiratory symptoms to a paediatrician. The time is Monday afternoon and the daughter has not attended school. The mother begins with a diagnostic claim (lines 1–2, 5) which strongly conveys her commitment to the veracity of her daughter's claims about her symptoms, and may imply the relevance of antibiotic treatment (Stivers, 2002; Stivers et al., 2003; Heritage and Stivers, 1999):

## Extract (1)

- 1 MOM: .hhh Uhm (.) Uh- We're- thinking she might have an  
 2 ear infection? [in thuh left ear?  
 3 DOC: [Okay,  
 4 DOC: Oka:y,

- 5 MOM: Uh:m because=uh. she's had some pain  
 6 (.)  
 7 DOC: [Alrighty?  
 8 MOM: [over thuh weekend: . .h|h  
 9 DOC: [No fever er anything?,  
 10 MOM: Uhm[:  
 11 DOC: [Mkay:[:?  
 12 MOM: [An' uh sore throat\_  
 13 (0.2)  
 14 MOM: An:' like uh (.) cold.  
 15 (.)  
 16 DOC: Wow.  
 17 MOM: (An' thuh)/(Kinda thuh) cold symptoms, huhhh.  
 18 DOC: Was it like that over thuh weekend too?  
 19 (0.2)  
 20 MOM: → Uh:m: When did you notice it.  
 21 (.)  
 22 MOM: → <Yesterday you mentioned it.  
 23 PAT: Yesterday.  
 24 DOC: M[kay.  
 25 MOM: [It started yesterday. ( )/(0.5)  
 26 (0.2)  
 27 DOC: °#Lemme write that i:n,#°

After some elaboration of the child's cold symptoms (lines 12–17), the doctor asks about their duration (line 18), and the mother refers the question to her daughter at line 20 ('Uh:m: When did you notice it'). The verb form – 'notice' – that she uses here conveys a quite distinct notion of attention and cognition. It suggests that the child's perception of her symptoms emerged in an unlooked for and, hence, unmotivated way. Its use is a second way in which the mother conveys her commitment to the facticity of her daughter's symptoms, and especially works against any possibility that they were fabricated as a means of not attending school – an issue that can hang heavily over Monday visits to the paediatrician! Subsequently the mother distinguishes between the child's noticing her symptoms and 'mentioning' them – thus opening up the possibility that the child has endured them for longer than 24 hours, which would further underwrite the unmotivated nature of their discovery and report. Here then what is at issue is how the 'discovery', and the process of the coming to recognize, 'medical symptoms' is to be portrayed (see Halkowski (forthcoming) for an extended discussion of this subject).

A more elaborate presentation of cognitive process is contained in the following telephone call to a police emergency number in the central United States. Here the caller has a possibly police-relevant problem to describe to her local emergency service. Her report contains a number

of references to attention, cognition and memory, almost all of which are designed to convey the objectivity, probity and disinterestedness of her description.

## Extract (2)

- 1 Dis: .hh Midcity emergency.  
 2 Clr: .hhh Yeah uh(m) I'd like tuh:- report (0.2) something  
 3 weir:d that happen:ed about (0.5) uh(m) five minutes  
 4 ago, 'n front of our apartment building?  
 5 Dis: Yeah?  
 6 Clr: On eight fourteen eleventh avenue southeast,  
 7 Dis: Mm hm,=  
 8 Clr: =.hh We were just (.) uhm sittin' in the room 'n'  
 9 we heard this cla:nking y'know like (.) someone was  
 10 pulling something behind their ca:r.= 'N' we  
 11 looked out the window'n .hhh an' there was (this) (.)  
 12 light blue: smashed up uhm (1.0) .hh station wagon  
 13 an',=.hh A:nd thuh guy made a U-turn,=we live on  
 14 a dead end, .hh an:d (0.2) thuh whole front end of  
 15 the- (.) the car (is/w'z) smashed up. .hhh And (.) >he  
 16 jumped outta the car and I (r)emember< 'e- (.) he tried  
 17 to push the hood down (with/er) something and then he  
 18 jus' (.) started running an' he took o:ff.  
 19 Dis: Mm hm,  
 20 Clr: .hh A:nd we think that maybe 'e could've (.) you know  
 21 stolen the car and aba:ndoned it. er something,  
 22 Dis: What kinda car is it?  
 23 Clr: .hh It's a blue station wagon.=hhh .hhh  
 24 (0.2)  
 25 Clr: We just (.) have seen it from the window.  
 26 Dis: We'll get somebody over there.

Consider, for example, the preface (lines 2–4) with which she begins her account. She undertakes to offer a 'report' on an event which she then characterizes as 'something weir:d'. This juxtaposition of terms is most interesting: viewed in the abstract, there is a strong contrast between the word 'report' with its overtones of objectivity and 'official' probativeness, and the vague and highly vernacular description of the object of that report as 'something weir:d'. Yet, in context, the purpose of this juxtaposition seems clear enough: the caller cannot classify the event she's reporting on as a 'robbery', 'car accident', or some other police relevant event, and she needs some generalized description of the event that can serve as a referential placeholder for the narrative in which its particulars will be disclosed. In context, the term 'report' and the cautiously anxious 'something weir:d' convey the stance of a concerned caller who is reluctant to jump to conclusions. Also noteworthy as elements of this opening turn

conveying objectivity and trustworthiness are the time reference of the event ('five minutes ago') which conveys that she considered the situation before calling, and 'n front of our apartment building?' which not only conveys her legitimate interest in her local environment (Whalen and Zimmerman, 1990; Zimmerman, 1992) but also, with the word 'our', suggests that there was another witness to the event – something that is confirmed at line 8.<sup>1</sup>

The subsequent narrative then describes how the caller's attention was drawn to the incident she reports. Here the caller goes to some trouble to portray how she came to be looking out of her apartment window at a point when she could observe the car and driver. As it is described here, the caller's observations have some parallels with the simple 'noticing' of the first example. She portrays herself as engaged elsewhere ('We were just (.) uhm sittin' in the room'), and having her attention drawn to an unfamiliar sound 'cla:nking y'know like (.) someone was pulling something behind their ca:r'. The shift in attention and the action of going to look out of the window is specifically legitimated by the unusual sounds she describes herself as having heard. In this way, the caller portrays her coming to see the incident as 'innocent' and as 'unmotivated' by anything beyond the specifics of the occasion.

In the later part of her account, which is designed to be complete at line 18, the caller persists with the reporting policy which she began with her use of 'something weir:d': she avoids interpreting the motivation of the events she describes. It is only after she is prompted by the police dispatcher's continuer at line 19, that she describes the event in police relevant terms, and then with much caution: '.hh A:nd we think that maybe 'e could've (.) you know stolen the car and aba:ndoned it. er something'. It is significant that this final suggestion is not embedded in the caller's earlier descriptions, which are entirely free of motive attributions, and instead emerges as a 'prompted' inference, the withholding of which until 'prompted' in itself embodies the caution, probity and objectivity that the caller has consistently sustained by reporting 'just the facts' of what she has seen.

While both of these examples are comparatively ordinary and mundane, they illustrate two fundamental points: (1) cognitive process can be and often is the object of particular, careful and detailed handling in reports of events, and (2) this handling is not 'unmotivated': it is ordinarily driven by efforts to underwrite the objectivity and legitimacy of what is claimed to be the case and, no matter how outlandish the claim, the ordinariness, disinterestedness and normality of the person who witnessed it (Sacks, 1984). In sum, the portrayal of cognitive process in discourse is substantially driven by normative (or 'moral') conventions which delimit the kinds of factual claims that can be made by witnesses

of particular types (Garfinkel, 1967; Pollner, 1987; Heritage, 1984b; Edwards, 1997).

### Cognitive process as an interactional event

Cognitive process is not something which speakers simply report, it is also something which they embody in talk-in-interaction. This embodiment takes a wide variety of forms, but a particularly common and significant one involves the deployment of the particle 'oh'. This particle is effectively specialized for the expression of cognitive process since it functions as a 'change of state' token used to 'propose that its producer has undergone some kind of change of state in his or her locally current state of knowledge, information, orientation or awareness' (Heritage, 1984b:299). *Oh* is heavily deployed in interactions involving information transfer and in interactional events that involve the embodiment of cognitive events such as noticing, remembering and understanding.

*Oh* is frequently deployed in interaction sequences in which a participant needs (or wishes) to embody the experience of recollection. For example, in extract (3) a story teller suspends a story in progress while some participants leave the room:

#### Extract (3) [Goodwin: G91:250]

- 1 A: Yeah I useta- This girlfr- er Jeff's gir:rlfriend,  
 2 the one he's gettin' married to, (0.9) s brother.=  
 3 = he use'to uh,  
 4 .... ((13 lines of data omitted. Some potential story  
 5 .... recipients leave the room))  
 6 ....  
 7 A: What was I gonna say.=  
 8 A: → =Oh:: anyway. She use'ta, (0.4) come over

At line 7, the story teller undertakes to resume the story with a display – 'What was I gonna say.= ' – that he is searching for the point at which to resume it. At line 8, his resumption of the story is prefaced with 'Oh:: anyway', by which he conveys that this search has been successful, and that he has remembered the point at which the narrative was previously abandoned and should be resumed. The resumption picks up the very words ('used to') at which the narrative was previously abandoned (see line 3). In extract (4) recollection is also associated with the production of 'oh'. Shirley's offer of a 'place to stay' (in San Francisco) is rejected by Geri with the account that she 'has Victor' – the person she was apparently intending to visit (line 12). At this point Shirley emphatically displays her

recollection that this is true: '↑OH that's ↑RI:GHT.' and 'I FER↑GO:T Completely'. (lines 11 and 13).

#### Extract (4) [Frankel TC1]

- 1 Shi .hhhhhh Mike en I er thinking about going.  
 2 (0.3)  
 3 Shi: and if we do:, (.) we're g'nna stay et her hou:se.=  
 4 Ger: =M-[hm,  
 5 Shi: [.hhhh So: it's a four bedroom house.  
 6 (0.2)  
 7 Ger: M-[hm,  
 8 Shi: [.hhh So if you guys want a place tuh sta:y.  
 9 (0.3)  
 10 Ger: .t.hhh Oh well thank you but you we ha- yihknow Victor.  
 11 Shi: → ↑OH that's ↑RI:GHT.=  
 12 Ger: =That's why we were going[(we)  
 13 Shi: → [I FER↑GO:T. Completely.  
 14 Ger: Ye:ah. Bec'z, .hhh he called tih invite us,

Here, as in extract (3), the production of *oh* is clearly associated with an explicit effort to convey a cognitive event – an interactionally engendered 'remembering'. A 'change of cognitive state' – produced by the informing – is conveyed by *oh* and thereby injected into the interaction, as part of the interaction's own process and contingencies. That Shirley 'remembers' about Victor here, rather than simply 'registering the new information' is crucial. Participants keep rather exact score over what each knows, and is entitled to know, about the social worlds of others. To fail to register 'remembering' here would be to deny knowledge that Geri has presumably conveyed to Shirley in the past. To fail to register 'information change' (for example by just acknowledging the account with 'Okay'), would be to treat the account as 'already known' and, hence, to be visibly guilty of a pro forma or 'phony' invitation – one that the inviter knew would have to be rejected. 'Remembering' is therefore the only means by which Shirley can respect the fact that she previously knew about 'Victor' and his availability as a person to be visited, while also embodying the claim that her original invitation was genuine rather than phony or pro forma.

At this point in the discussion, it might be tempting to think of *oh* as simply the outward expression of an inner psychological event – an expression like 'Ouch' which provides a voluntary or perhaps even involuntary 'window into the mind' (Goffman, 1981). However, this perspective is complicated by cases like extract (4) above in which cognitive claims are implicated in the management of social relationships. It is also complicated by the fact that the display of a 'change of state' is something that

may be required by virtue of an interactional logic that organizes the social relations that obtain between different speaking roles.

For example in extract (5) below, the caller, Carrie, has 'good news' to impart to her recipient:

Extract (5) [Field U88:2:4:1]

- 1 Les: Hello↑:ʔh  
 2 (0.2)  
 3 Car: Oh Les-lie [it's Carr[ie.]  
 4 TV: [( ) [( ) [( )  
 5 Les: [.t hOh: ↑Carrie: ↑Yes  
 6 he↑llo[↓:hh .hh hh  
 7 Car: [I: ↑thought you'd like to know I've got a little  
 8 ↓gran'daughter  
 9 Les: → .thlk ↑Oh: how love↓ly.  
 10 Car: ↓Ye:s? bo:rn th's <early hours'v this ↓morning.  
 11 Les: → .k↑Oh: joll[y goo:d,[h  
 12 Car: [↓Ye:s [↑Christi:ne ↓Ru[th.  
 13 Les: → [.hhhhh -hOh:: that's  
 14 ↓ni:ce:.h What a nice name.

At the risk of belabouring the obvious, Lesley's response to each piece of news is managed through an [oh] + [assessment] format. This is a format in which *oh* – the part of the turn concerned with acknowledging the status of the information as 'news' – always precedes the assessment of the news itself. Thus in this sequence each prior turn is first addressed as 'news' and only subsequently as 'good' (or 'bad') news. This is a pattern which is, of course, very general.

The situation in extract (5) can be compared with that in extract (6) in which Shirley has bad news to tell Geri:

Extract (6) [Franket TCI]

- 1 Shi: In any eve::nt?hhhhh That's not all thet's ne:w.  
 2 Ger: W't e:lse.  
 3 Shi: .t.hhhhh W'l Wendy'n I hev been rilly having problems.  
 4 Ger: M-hm,  
 5 Shi: ((voice becomes confiding)) .hh En yesterday I talk'tih  
 6 her. .hhhh A:n' (0.3) apparently her mother is terminal.  
 7 (0.5)  
 8 Ger: → .tch Yeh but we knew that befo[:re.  
 9 Shi: [.hhh Ri:ght. Well, (.)  
 10 now I guess it's official.  
 11 Ger: Mm-hm.  
 12 Shi: .t.hhh So she's very very upset.

Here, what is projected as news is met, not with *oh*, but with 'Yeh' and 'but we knew that befo:re', which underscores that this is not 'news' for Geri. Shirley's unhappiness with this response, which denies the 'newsworthiness' of what she had clearly projected as 'news' is highlighted in her response: '.hhh Ri:ght. Well, (.) now I guess it's official'. This response is designed to salvage the significance of what she has just said as news by describing it in terms of a shift in how 'publicly' Wendy's mother's terminal cancer is being treated, though Geri declines to acknowledge this as 'news' either (at line 11).

*Oh* is also used to index a cognitive shift in the context of answers-to questions. In this context the questioner, who by asking the question has committed to a position of non-knowing (K-), may be obligated to acknowledge an answer to a question by indexing a change of cognitive state from nonknowing to knowing (K+). This possibility is illustrated in the next few examples. In extract (7) this simple interactional logic informs Jenny's production of '*oh*' at line 6.

Extract (7) [Rah:II:1]

- 1 Ver: And she's got the application forms.=  
 2 Jen: =Ooh:: so when is her interview did she sa[:y?  
 3 Ver: [She  
 4 didn't (.) Well she's gotta send their fo:rm  
 5 back. Sh[e doesn't know when the [interview is yet.  
 6 Jen: → [O h : : . [Oh it's just the form,

Jenny's initial question (about a mutual friend's job application) clearly presupposes that the friend's application has progressed to the point where an interview for the job is the 'next step'. It is this presupposition which Vera's response undercuts, and is this undercutting which Jenny's *oh* acknowledges. The information that Vera provides is evidently 'surprising' to Jenny, and it might be held that this example involves a similar yoking of inner cognitive event (surprise – a drastic change of cognitive state) and outer behavioural display that is arguably central to the earlier cases of remembering. Yet it can also be argued that someone who has experienced this degree of cognitive shift is under an *interactional* obligation to embody it, and that this obligation is also implicated in Jenny's response at line 6.

Support for this second line of thinking comes from cases where the information given in question-answer sequences is less 'surprising' to the questioner and *oh* production is more likely driven by the external demands of interaction rather than the internal pressures of cognitive expression. In extract (8) for example, there is a much more fine-grained information transfer. Shirley asks her friend Geri about when her

academic term ends, using what survey methodologists would describe as a closed ended (alternative) question.

Extract (8) [Frankel:TC]

- 1 Shi: .hh When do you get out. Christmas week or the  
2 week before Christmas.  
3 (0.3)  
4 Ger: Uh::m two or three days before Ch[r]istmas,]  
5 Shi: → [O h : ,]

Here Geri's answer falls well within the parameters set by Shirley's question, yet Shirley still acknowledges the information conveyed with an *oh*-carried change of state token.

Still more fine-grained is extract (9) in which Jenny questions Ivy's work plans by describing a third-party's claim that Ivy will be working tomorrow:

Extract (9) [Rah:12:4:ST]

- 1 Jen: Okay then I was asking and she says you're  
2 working tomorrow as well,  
3 Ivy: Yes I'm supposed to be tomorrow yes,  
4 Jen: → Oh::,

Ivy's response simply confirms what Jenny reports, yet Jenny still acknowledges that confirmation with *oh*, indicating a change in her state of information. And here too there is after all a change: information from a third party has been confirmed by a first party: its certainty has been increased. It is this shift which is being acknowledged.

A sequential-interactive logic is implicated in this registration of a cognitive change of state. By the act of questioning, a questioner proposes to be 'uninformed' about some matter, and by the same act, projects the recipient to be 'informed' about it. Inbuilt into this sequential logic is the notion that the answer to a question by an answerer who was projected to be informed, should impact the state of knowledge of the questioner, changing it from 'uninformed' to 'now informed'. It is just this shift which *oh* is deployed to acknowledge. Moreover, by that deployment it also reconfirms the basic relationship of non-knowing (K-) and knowing (K+) that the roles of questioner and answerer embody.

The use of *oh*-receipt to sequentially 'lock down' the K-/K+ relationship of questioner and answerer is also strongly supported by counter-examples. Teachers do not receipt answers to 'known answer' or 'exam' questions with *oh* because they have not been 'informed' by them. Legal counsel and news interviewers do not *oh*-receipt the answers to their questions, in part at least, because it is not their obligation to support the

truthfulness or adequacy of an answer in the way that an *oh*-receipt (with its claim of a K- > K+) inevitably does.

Related considerations are in play in the following case example from ordinary conversation. Nancy is talking to her friend Hyla about Hyla's new boyfriend in San Francisco:

Extract (10) (HG:II:25)

- 1 Nan: a-> .hhh Dz he 'av 'iz own apa:rt[mint?]  
2 Hyl: b-> [hhhh] Yea:h,=  
3 Nan: c-> =Oh;  
4 (1.0)  
5 Nan: a-> How didju git 'iz number,  
6 (.)  
7 Hyl: b-> I(h) (.) c(h)alled infermation'n San  
8 b-> Fr'ncisc(h) [uh!  
9 Nan: c-> [Oh:::  
10 (.)  
11 Nan: Very cleve:r, hh=  
12 Hyl: =Thank you [: I-.hh-.hhhhhhhh hh=  
13 Nan: a-> [W'ts 'iz last name,  
14 Hyl: b-> =Uh:: Freedla:nd.hh{hh  
15 Nan: c-> [Oh[:,  
16 Hyl: [(r) Freedlind.=  
17 Nan: d-> =Nice Jewish bo:y?  
18 (.)  
19 Hyl: e-> O:f cou:rs,=  
20 Nan: f-> ='v [cou:rs, ]  
21 Hyl: [hh-hh-hh]hnh .hhhhh=  
22 Nan: =Nice Jewish boy who doesn't like tih write letters?

Here, in a series of three Q-A-*Oh* sequences, Nancy interrogates her friend about her new *amour*, and at line 17 seemingly begins a fourth with the question-intoned declarative 'Nice Jewish bo:y?'. Although this turn could readily be understood as a continuation of this line of questioning, it is noticeable that Nancy's acknowledgement of Hyla's response at line 20 does not involve a change of state claim. To the contrary, it echoes Hyla's answer 'O:f cou:rs' in such a way as to treat that answer as having been quite specifically 'nonews'. This receipt has the effect of recalibrating how Nice Jewish bo:y? is to have been understood. Instead of a declarative question, it was intended as a 'comment' – an obvious enough inference from a common Jewish family name – and its 'confirmation' is not therefore to be treated as 'informative'. Here then the presence or absence of *oh* has consequences for how knowledge and information are understood to be possessed and trafficked by these conversationalists. With an *oh*-receipt, Nancy would have acknowledged a transfer of information

but, with it, she would have also acknowledged a certain lack of *savoir faire* about the boyfriend. With the 'v course', receipt, Nancy lays claim to that knowledge and, perhaps, to the inner mechanics of Hyla's choice of boyfriend.

The upshot of these observations is twofold. First, interactional participants keep rather exact track of who knows what at each and every moment of an interaction. They do so in some substantial measure through the use of *oh* as a means of acknowledging 'changes of state' of knowledge and information, and they are attentive to this task because it is mandated by the terms of many of the sequences in which they participate. Second, the use of *oh* to keep track of the distribution of knowledge and information is remarkably economical. *Oh* merely enacts 'changes of state', but whether the change of state enacted involves a change of attention, memory, orientation or knowledge is left to be inferred from the context in which the *oh* is produced. Similarly, whether the knowledge accrued in a particular informing that is acknowledged with *oh* is significantly new (as in extract (7)) or merely incrementally confirmatory (as in extract (9)) is likewise inferred, though intonational and other resources may be used to discriminate the weight and unexpectedness of the information involved (Maynard, 2003).

### Grasping the meaning of referents

*Oh* is also systematically deployed in sequences of interaction where issues of understanding are at issue. Consider extract (11) below, which follows just after Sam (S) has invited Fran's (F) daughter to visit his children at their beach house.

#### Extract (11) [NB:III:1:2]

- 1 F: When didju want'er tih come do::w[n.  
 2 S: [hhh *Oh* any time  
 3 between: now en nex' Saturday, hh  
 4 F: -> A wee:k from:: (0.3) this coming Saturdee.  
 5 S: Yeah.  
 6 (.)  
 7 F: -> .hhhh *Oh*:::

Our sequence begins as Fran asks about a date for the projected visit (line 1), and Sam's response contains a residual ambiguity concerning how 'next Saturday' is to be understood – the immediately next Saturday (about two days hence) or the Saturday that is still nine days away. Fran deals with the ambiguity by offering an understanding check – a 'best guess' about the Saturday referred to – and, when this is confirmed, she

acknowledges that confirmation with *oh* (line 7). Two points can be made about this sequence. First Fran withholds the *oh*-carried claim of understanding, until *after* Sam has confirmed her understanding check. The displayed 'moment of understanding' is deferred until her 'best guess' is confirmed. Second, by this means, the understanding check at line 4 is presented as having been deployed in pursuit of a genuine and currently experienced ambiguity. Line 4 was truly and only a 'best guess' at what Sam intended, 'enlightenment' did not arrive until line 5, and was only registered at line 7.

This situation contrasts rather pointedly with extract (12), in which there is a very similar type of ambiguity about the meaning of 'Monday':

#### Extract (12) [DA:2:2]

- 1 M: How long yih gunna be he:re,=  
 2 B: =.hhhh Uh:t's (.) not too lo:ng. Uh:: just'ntil:  
 3 uh::uh think Monday.  
 4 (1.0)  
 5 M: → Til, oh jih mean like a week tomorrow  
 6 B: Yah.  
 7 (0.3)  
 8 B: Mm:hm,=  
 9 M: → =Now you told me you ehw-u-where are yuh.Are  
 10 you u-ut uh:, Puh-uh: (.) Palos uh::

Here Betty's response to Mary also seems to have a residual ambiguity, but the context of the conversation, which happens on a Sunday, leads Mary to believe that if Betty had meant the immediately upcoming Monday, she would have used the term 'tomorrow' and hence that she must mean the following Monday. All of this she unpacks with 'Til, oh jih mean like a week tomorrow'. In this case, the *oh*-carried change of state that conveys 'understanding' occurs *before* Mary delivers on the actual understanding she has achieved. In this way she indicates that 'then and there', prior to confirmation by Betty, is the moment at which she has become enlightened. It can be further noticed that after Betty has confirmed this understanding at line 6, Mary does not further acknowledge this confirmation with *oh*. Line 5 was the point at which understanding was reached, not line 7 or line 9. And Mary successfully conveys that her utterance at line 5 was not an 'understanding check' in primary search of confirmation, but rather a display that she had correctly understood what her co-interactant had intended. Across these two parallel cases, it is clear that *oh* is implicated showing the moment at which understanding is reached as an integral part of the process through which the exact status of the 'understanding check' is displayed.

### Tracking the ownership of knowledge: *Oh*-prefaced turns in second position

Interactants not only keep score on who knows what, they also keep rather close watch over the relative rights that each may have to know particular facts. *Oh* is also involved in this process. *Oh*-prefaced turns are often used to convey what might be termed 'ownership' of knowledge and with it, epistemic supremacy in relation to other interactants. Consider the following interview in which Sir Harold Acton, a noted English aesthete, is interviewed by the British broadcaster Russell Harty. The interview has turned to a discussion about the manners of the Chinese and some work that Acton was doing in Beijing – teaching modern poetry at Beijing University. Sir Harold Acton's reply to the question 'Did you learn to speak Chinese' is *oh*-prefaced:

Extract (13) [Chat Show: Russell Harty-Sir Harold Acton]

- 1 Act: ...h h h h and some of thuh- (0.3) some of my students  
 2 translated Eliot into Chine:::se. I think thuh very  
 3 first.  
 4 (0.2)  
 5 Har: Did you learn to speak (.) Chine[:se.  
 6 Act: → [hh Oh yes.  
 7 (0.7)  
 8 Act: .h h h h You ca::n't live in thuh country without speaking  
 9 thuh lang[uage it's impossible .h h h h=  
 10 Har: → [Not no: cour:se

Here, given that Acton taught modern poetry and that his students were the first to translate T. S. Eliot's work, the interviewer's question is clearly vulnerable to the charge that it is questioning the obvious. Acton's responsive '*oh* yes' manages to convey just that, treating it as evident that he would have learned the language. Subsequently both parties topicalize the self-evident nature of the point. Acton goes on to explain briefly why it was essential to learn the language to live in China (lines 8–9). And this explanation, in turn, is acknowledged by the interviewer (with 'Not no: course' [line 10]) in a way that treats the answer to his question as, after all, having been quite self-evident.

In this example and others like it (Heritage, 1998), this process of challenging the relevance or appropriateness of a question by *oh*-prefacing the response exploits the 'change-of-state' meaning of '*oh*' to indicate that the question has occasioned a *shift of attention*. In the case of questions, conveying a shift of this kind can imply that a question was inapposite and, hence, that the respondent is experiencing difficulties with the question's relevance, appropriateness, or presuppositions. In this way, a respondent

can challenge or resist the relevance of a question and the course of action that the question may be implementing.

An important feature of this practice is that, through it, the respondent can convey that *their own point of view* is the basic framework from which the issue is to be considered, and does so inexplicitly yet insistently (Heritage, 1998:291–6). In treating their own point of view as the perspective from which some matter should be considered, *oh*-prefacing respondents index (and reaffirm) a claim of epistemic authority or supremacy over their questioners.

A similar process is involved in *oh*-prefaced agreement and disagreement. In the following case, for example, Gay is giving Jeremy a German telephone number. After she has given eleven digits of the number, thus exceeding the norm (during the 1980s) for a (British) intra-country call, Jeremy comments (line 13) on the length of the number, prefacing his comment with 'Gosh', an expression which indicates that, for him, this is something new, notable or surprising. Here Gay could have responded with a simple agreement which would have conveyed that her agreement was grounded in the 'here and now' common experience of an interminable telephone number. Instead, her *oh*-prefaced response – '*Oh* it doe:s' – treats his remark as reviving an earlier observation of the same type that she had made independently of this occasion, and she thereby conveys that, in contrast to Jeremy, she finds it unsurprising. By this means she also manages to indicate that she is an 'old hand' at phoning abroad, at least relative to Jeremy:

Extract (14) [Heritage:01:7:3]

- 1 Gay: So the -number is (0.2) oh: one oh::  
 2 Jer: Oh one oh:,  
 3 (1.0)  
 4 Jer: Yeup,  
 5 Gay: ↑Four ni:ne,  
 6 (0.5)  
 7 Jer: Ri:ght?  
 8 Gay: Sev'n three, u-six o:ne?hh  
 9 (0.6)  
 10 Jer: Sev'n three: six o:ne?  
 11 (0.3)  
 12 Gay: Ei:ght ni:ne,  
 13 Jer: → °Gosh° it goe:s (.) goes on'n on  
 14 Gay: → Oh it doe:s Germany doe:s.

It may also be noticed that Gay adds a turn component that appears designed to further suggest her expertise about foreign telephone calls. Her postpositioned 'adjusting' component ('Germany doe:s.')

recalibrates the referent of her response from this particular telephone number to German telephone numbers in general, and also works to convey a degree of prior knowledge on the topic. Moreover, with its hint of a further contrast with telephone numbers in other foreign countries, it implies a still broader expertise in the matter of placing telephone calls abroad. Shortly afterwards, Gay underscores her expertise, informing Jeremy that the 'ringing' sound on a German phone sounds like a 'busy' signal on a British phone (data not shown).

Here then the second speaker, Gay, has used an *oh*-preface in her response to convey that Jeremy's remark has induced a shift in her attention to something previously known and taken for granted. In this way she conveys that she has *previously and independently* arrived at the conclusion that her co-interactant verbalizes. Here, although both parties are in agreement about the length of the telephone number, the expression of their agreement is managed such that Gay asserts epistemic superiority over Jeremy in the matter of 'phoning abroad' (Heritage, 2002).

*Oh*-prefaced agreements are common in environments where the second, *oh*-prefacing speaker has primary access to the state of affairs being assessed, and/or primary rights to assess it. In this context, *oh*-prefacing continues to index 'independent access' to the referent, and as indexing the epistemic authority of the second speaker.

In the following instance, for example, two dog breeders – Norman and Ilene – have been talking about the readiness of one of Norman's younger dogs to have a first litter. At line 9, Ilene ventures a comment about one of Norman's other dogs (Trixie), who apparently began breeding at a young age:

Extract (15) [Heritage 1:11:4]

- 1 Ile: No well she's still a bit young though isn't [she<ah me]an:=  
 2 Nor: [S h e : :]  
 3 Ile: =uh[:]  
 4 Nor: [She wz a year: la:st we:k.  
 5 Ile: Ah yes. Oh well any time no:w [then.]  
 6 Nor: [Uh::]:[m  
 7 Ile: [Ye:s.=  
 8 Nor: =But she[:'s ( )]  
 9 Ile: → [Cuz Trixie started] so early [didn't sh[e,  
 10 Nor: → [° h : : [ye:s.°=  
 11 Ile: =°Ye:h°=

Here Norman's *oh*-prefaced agreement (line 10), in conveying the independence of his assessment from Ilene's, also alludes to his epistemic priority with respect to the information in question. At the same moment,

Ilene's tag question (line 9) downgrades the epistemic strength of what would otherwise be a flat assertion.

In extract (15), the epistemic priority of the second, *oh*-prefacing speaker is available from the topic and context of the interaction, and implicitly indexed in the talk. In the following cases, the priority between first and second assessors is directly established in the sequence prior to the *oh*-prefaced second assessment. In extract (16) Jon and Lyn are talking to Eve, Jon's mother. After Jon's announcement about going to the movie 'Midnight Cowboy', Lyn asks Eve if she has seen it. She replies that she did not and goes on to account for this by reference to a friend, 'Jo', who reportedly said that the film 'depressed her terribly' (lines 5–6):

Extract (16) [JS:II:61:ST]

- 1 Jon: We saw Midnight Cowboy yesterday -or [suh- Friday.  
 2 Eve: [Oh?  
 3 Lyn: Didju s- you saw that, [it's really good.  
 4 Eve: [No I haven't seen it  
 5 Jon: Jo saw it 'n she said she f- depressed her  
 6 Eve: ter[ribly  
 7 Jon: → [Oh it's [terribly depressing.  
 8 Lyn: → [Oh it's depressing.

Here both Jon and Lyn agree with Eve's friend's opinion, but both their agreeing assessments are *oh*-prefaced, thus indexing the independence of their access to the movie, and in this context that, relative to Eve, they have epistemic priority: direct, rather than indirect, access to the movie. Once again, in a sequence that is clearly occupied with agreement about the film, the 'terms of agreement' – who has epistemic priority in the film's assessment – is also being addressed (Heritage and Raymond forthcoming).

The use of *oh*-prefacing is far from being the only resource through which this kind of epistemic supremacy is indexed. For example, in the following sequence, Lesley is the one with direct access to her daughter's dental problems, and Mum downgrades her access to the referent with the evidential verb 'sounds' (Chafe, 1986), and the following tag-question:

Extract (17) [Field X(C)-1-2-7]

- 1 Les: .hh An' I'll: get her fixed up with a de:ntist too:,  
 2 (0.7)  
 3 Mum: Oh w't a ↓nuisance isn't ↓it. Is it ↓ey:e tee:th?  
 4 (0.4)  
 5 Les: .hh ↑Well the den: u-her dentist says °no:t.°  
 6 (0.2)



- 7 Mum: [↑Hm].  
 8 Les: [.hh But I'll send 'er to ↓ my dentist I thi[nk  
 9 Mum: |Sounds  
 10 ↓like it ↓dzn't[↓it.  
 11 Les: [.hhh It does rather yes:

Lesley matches this downgrade with an upgrade managed through a deferred agreement 'It does rather yes:'. While Mum's tag-question (line 10) invites a 'type-conforming' 'yes' or 'no' response as the *first* component of any response (Raymond, 2003), Lesley's initial declaratively formed partial repeat 'It does' manages to *confirm* Mum's evaluation prior to 'responding to the question'. This confirmation embodies the claim that she previously and independently held this position, and treats this as an interactional issue to be dealt with as a matter of priority.

### Discussion: informational terrain and cognitive process in conversation

This chapter has offered some illustrations of several interrelated conversational phenomena that bear on the issue of cognition in discourse.

First, and most basic, is the observation that participants in conversation hold one another to strict standards of accountability concerning such matters as who knows what, when, and with what degree of epistemic priority relative to others in the interaction. The examples in this chapter indicate that social interactants address these matters with considerable economy and precision through the way turns are designed and timed. By these means each participant maintains, and is socially accountable for maintaining, a range of informational territories. For example, there is personal information which a person properly knows, and has rights to know better than others because it concerns his or her life, experience and property. Persons can 'know best' about working in China, or phoning Germany, because they have lived through such experiences. They can know best about particular dogs and children because they own them, and with that, they own the rights to describe them. This kind of cognitive terrain is bound up with social identity, and both the assertion of, and defence of, priority claims in this terrain can often be co-terminous with the assertion (and defence) of identity itself (Raymond and Heritage, 2004). Or again, there is information which a person properly knows by virtue of having been told it by another. This is information that a person is often held accountable for as a condition of achieving understanding of turns at talk, as some of Garfinkel's (1967) experiments illustrate. It is information that a person can be enjoined to 'remember'. It is information which one should not be repeatedly told (Maynard, 2003; Terasaki,

forthcoming; Schegloff, forthcoming). Then there is information that is acquired in the here and now, whose registration as 'new information' is mandated as a matter of sequence-specific priority.

Second, this chapter has illustrated the corollary to this first point: the specificity and exactness with which cognitive process is both *represented* and *embodied* in interaction. These features are commensurate with the importance with which cognition and cognitive process are invested in conversation. As this chapter has illustrated, the meaning of actions qua actions, their implications for the nature of social relations and their import for identity itself can be, and frequently is, embedded in their treatment in terms of cognitive process. Considerable interactional resources are dedicated to this treatment.

However, these issues raise a third: what is the status of the 'cognitive processes' that are somehow indexed by *oh* and the other procedures discussed here. As noted earlier, it might be possible to think of *oh* as directly tied to the experience (and the neuropsychology) of undergoing a 'change of cognitive state', such that the utterance of '*oh*' indexes the arrival of such a state as its outward marker. Perhaps *oh* and 'ouch' and other similar response cries – 'signs meant to taken to index directly the state of the transmitter' (Goffman, 1981:116) – have a direct psychological reality. Such a conception is not without its attractions: most readers will have produced an *oh* at the very moment of some dawning understanding or realization and, when interaction is examined, it is clear that many *ohs* are produced very close to the point at which the information-content of prior talk was conveyed – see, for example, extracts (5) and (7) above. Yet it is clear that this conception has some difficulties: the utterance of *oh* is a point event, whereas a change of cognitive state is likely a processual one that dawns, emerges and consolidates. Additionally, like 'ouch', *oh* can be withheld in the face of its corresponding cognitive event, or produced in the absence of such an event – both of these sins (of omission and commission) representing forms of conduct associated with the manipulation of symbols, rather than the direct expression of cognitive states. Moreover like pain and other forms of distress behaviour (Heath, 1989; Whalen and Zimmerman, 1998), the production of *oh* is accommodated to the exigencies of interactional decorum, being mainly produced at the boundaries of turn-constructional units where turn-transfer becomes an option, rather than an 'online' reaction to information as it is produced. All of this points to the symbolic conventionalization of *oh* which is specifically conveyed in Goffman's characterization of 'response cries' as 'signs meant to be taken to index directly the state of the transmitter' (emphasis added). Then, further, there is the additional conventionalization of the semantics of *oh* in many *oh*-prefaced usages which are also

distanced from the experiential states that their utterance might otherwise claim.

In his later writings, Emile Durkheim (1915) made frequent reference to the idea that the control and regulation of knowledge was simultaneously the control and regulation of social relations between persons. In this chapter I have suggested that this idea may have some value when we examine how cognitive processes are represented and embodied in social interaction. In the lay world of interaction, attention, cognition and memory are far from being abstract topics of purely scientific interest. On the contrary they are matters of relentless social concern and personal accountability. At the same time, communication processes which can be plausibly conceived to have a relatively primitive psychological substrate have undergone a level of conventionalization and domestication that permits their 'semantic' deployment. The result is enhanced human capacity to regulate experiential and informational territories that are substantially more distant, and sophisticated, than the simple exclamations with which we began.

#### NOTE

1. The invocation of third parties to bolster the objectivity of descriptions is commonplace, especially when they are potentially questionable (Wooffitt, 1992; Potter, 1996; Heritage and Robinson, *forth*).