

Maps and journeys: an ethnomethodological investigation

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Abstract

The notion of the ‘cognitive map’ has long been central to studies of maps, wayfinding and navigation. In this paper we provide an alternate approach to studying map use which re-situates these activities as shared social and cultural practices. This paper draws on ethnomethodology and conversation analysis to study video of two examples of naturally-organised map reading. We explore how journeying with maps is part of the *in situ* organisation of matters such as workplace tasks, means of transportation, having a ‘nice day out’ maintaining friendships and so on. In our first clip a saleswoman consults an A-Z while stopped at traffic lights in order to plan the journey ahead. In the second clip, a group of friends consult a map as they set off for a daytrip together in a car. These clips provide thick descriptions of map use, the detailed activities involved in map use.

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Introduction: Let's get lost to find our way back again

Much of the literature on map use ventures far from any actual examples of maps being read. Hypothesised mental processes take the place of lost tourists, how actual map readers go about reading a map are left to one side, resulting in a peculiarly thin description of maps in real world practices. In looking at map use, one place to start is with map readers themselves, and the contingencies they face. Miroslav Holub writes of an army becoming lost in the mountains:

The young lieutenant of a small Hungarian detachment in the Alps
sent a reconnaissance unit out onto the icy wasteland.

It began to snow
immediately,
snowed for two days and the unit
did not return.

The lieutenant suffered:
he had dispatched
his own people to death.

But the third day the unit came back.
Where had they been? How had they made their way?
Yes, they said, we considered ourselves
lost and waited for the end. And then one of us
found a map in his pocket. That calmed us down.
We pitched camp, lasted out the snowstorm and then with the map
we discovered our bearings.
And here we are.

The lieutenant borrowed this remarkable map
and had a good look at it. It was not a map of the Alps
but of the Pyrenees¹.

Holub's poem reminds us that maps are used to do so much more than merely reading and navigating. When we pull them out of our pockets they can calm us down, give us confidence, and make us march when we might have huddled together in dissent or despair. They can just as often drive us crazy with frustration, disorient us and make us cry. For these Hungarians it made no difference whether the map corresponded with the place in which the unit were lost. It is that part of the poem that delights us and makes us laugh, that having the wrong map we might still find our way home.

We might even choose to deliberately use the wrong map – those famous radical urbanists, the situationists, would deliberately use the 'wrong' map to navigate cities – using the map of Paris to find their way around London. For us as researchers when the unit arrives at the end of the journey, do we simply conclude that they read the map wrong, while when the Situationists get lost they have read it right? Could we be missing what 'following the map' could consist of, for either mortally afraid reconnaissance units or bored urban critics on a day out? Might there be another line of investigation that returns to the course of events to provide answers to the poet's questions about what *actually* happened : 'where had they been? how had they made their way?'

What we are suggesting is to turn to examining actual instances of map use because there are phenomena there we cannot locate elsewhere. As Garfinkel puts it:

It is not possible to read from the map the work of following the map in a way finding journey. The traveller's work of consulting the map is an unavoidable detail of lived, ongoingly, in-its-course, first time through, travelling body's way-finding journey that the map is consulted to get done (Garfinkel 2002: 130)

While in some ways this is an obvious move, the prevailing tenor of studies of map use and wayfinding more generally has been to provide explanations based in cognition, behaviour or social factors (Kitchen 1994; Golledge 1999; Kitchen and Freundschuh 2000). At the centre of this work has been the notion of the cognitive or mental map (Tolman 1948) - 'the internal spatial representation of environmental information' (Golledge 1999: xiv). In modelling cognitive maps, the paper artefacts we are all familiar with, have literally *disappeared* from view. Wayfinding as a complex, ecologically situated task in turn has also been transformed, into the 'goal-directed or destination-direct movement through the environment' (p554, Allen 1999) – with the goal being getting to a specific single physical location. Even in the classics of the literature (Golledge and Stimson 1997) the cognitive map and the process of wayfinding are so prioritised that at some points one could be forgiven for thinking that these activities occur in a vacuum or that persons drop all other activities to follow the map. The workplace, situation-specific and contextualising nature of map use disappears as the focus turns to the paired-down, asocial, context-free and indirectly accessible mental comprehension of a lone map reader. In carrying out navigational tasks Holub's poem reminds us that groups of people are never simply 'map users', they are 'a lost reconnaissance unit', they are commuters, they are taxi-drivers, they are tourists, they are teachers, they are mountain rescue teams and as these sorts of cohorts they have their cohort-specific jobs to do. Maps fit as part of 'doing being colleagues', 'doing service', or 'doing a daytrip', or 'doing being friends' or 'doing mountain rescue'.

At the end of a recent collection of cognition studies, in mapping out future directions for research, Kitchen and Freundschuh note that their contributors agree that 'more work is needed to try and understand the relationship between spatial knowledge and spatial behaviour (action)' (2000,p253). A separation has been made, between action and thought, straightforward cartesianism, and the question is how can we put the pieces back together again. Although some recent work has paid more attention to the process of wayfinding, terms such as 'behaviour' and 'decision-making' remain as the central concepts for such inquiries. There is still a search for models that lie *in* the human mind:

Ontologies of wayfinding reflect human models of the domain of wayfinding. When we speak about the world, we speak about models of parts of the world that are constructed by the human mind (Timpf 2002: 10)

The few exceptions such as (Malinowski and Gillespie 2001) or (Lawton 1996) which have switched the focus from cognitive abilities, move it onto social factors such as gender differences or ability. We would argue that in the desire to provide explanations grounded in cognition or the familiar suspects of social science (age, class, gender etc) miss the questions raised by Holub's poem. *What* kind of situation or what kind of workplace is the map consulted in? *Where* does any group travel through? *How* does any group make their way? By 'how' we mean the detailed step-by-step working with the map, the environment and our co-map readers, which makes

map use possible. As Crampton (2002) notes from a slightly different perspective enquiry can be ‘dominated by a scientific approach that obscure(s) essential aspects of how things are’ (p13) (see also (Wood 1987)).

For us these questions translate into the necessity of following the map as it used and making sense of its use within the unfolding action, in real-time, as it were. This calls for a radical shift in perspective from *imagined* scenarios, *controlled* experiments or *retrospective* accounts, to examining how maps are used in the emerging sequential sense-making of a journey. What Holub’s reconnaissance unit is able to figure out in terms of where they are, where they have been and where they go next, is different at point *a* (when they leave), point *b* (half way there), point *c* (when the blizzard hits) and so on. What the problems are varies at point *a*, point *b* and point *c*, indeed the reconnaissance unit does not find itself to be lost until something like point *f* when the blizzard is over and they wake the next morning. A final point we might take from the poem is that a map was not needed until late on in the unit’s misadventure and the wrong map might never have left the soldier’s pocket had the blizzard not intervened.

Theoretical resources

At a conceptual level a great deal of attention has been devoted to mental capacities or cognitive abilities as *explanations* of skill and performance levels in wayfinding. Professional academic analysis has come to supplant the methods that ordinary persons use to make sense of and with maps. Following the lead of psychologists such as Hutchins (1993; 1995), and more specifically Garfinkel’s ethnomethodological program (Garfinkel 2002), we will look at wayfinding as ‘cognition in the wild’ using data we have collected of map use as part of workplace and leisure travelling. By way of contrast with controlled studies we will describe how maps are ‘naturally’ consulted and ‘naturally’ followed during the course of a journey (Heath 1997; Watson 1999). In particular, we will focus on how maps are used in *planning*, how maps are manipulated to produce *reciprocity* of perspectives, in that maps are used to assist in *seeing* a journey together (Goodwin 1995).

Conversation analysis (CA) has made many inroads into the publicly available reasoning by which people analyse their environment and use the products of their analysis in producing plans and actions (Silverman 1998; Suchman 1987)². Members’ analyses of location and place has been extensively studied in conversation generally (Schegloff 1972), in the construction of geography as a school subject (McHoul and Watson 1984), in religious accusation (Drew 1978), in accusations of troublemaking (Lepper 1995), as part of giving directions to taxis and emergency call outs (Psathas 1991; Psathas 1995; Psathas and Henslin 1967; Ikeya 2003; Zimmerman 1992), doing book searches in libraries (Crabtree 2000) and highly relevant to our second example, while giving tourists directions (Mondada forthcoming).

We treat what we do with maps as practical, publicly available, socially-organised activities, and something which can be studied by looking in detail at how those activities are arranged. Yet our use of ‘social’ here does not mean what we do, in using maps, is only about establishing consensus or resolving disagreements. Equally, although Holub’s poem opens our eyes to a maps’ part in convincing us we are not mortally lost, armies would not get very far if they used any random map to make their advances, retreats and bombardments. Maps are involved in checking, accuracy, reliability, in getting people moving and giving them a destination to travel toward. Yet these organisational requirements are not about finally establishing whether a

map is only a symbolic representation of the terrain we are travelling through (Button 1993; Ryle 1949). It is not correspondence which is the matter at hand for map readers, but ‘where do I go?’

Methodology

In cognitive studies of map use, investigators seldom join the reconnaissance unit in the mountains - staying safe at base camp with the young lieutenant. In contrast, field studies lead us toward the social settings which implicate maps in a less nakedly instrumental manner than that found in experiments (Montello 2003). As Malinowski and Gillespie comment “although spatial ability research conducted in small-scale or laboratory settings has flourished, fewer studies have been done in real-world, large scale settings” (Malinowski and Gillespie 2001). Cornell and Heth go further and argue that there is an important need for studies of “humans navigating real world routes” since little work has looked at navigation *in situ* in activities which are not part of experimental tasks (Cornell and Heth 2000).

The data we use here may seem unusual for those who are familiar with the existing literature on cognition and wayfinding. To provide access to the details of map work we will use two video recordings of episodes of map consultation. These episodes happened during ethnographic fieldwork we were conducting on other topics (mobile officework and tourism) which we have published elsewhere (Brown and Perry 2002; Laurier and Philo 2002). While we would not argue that having a camcorder trained on a setting does not change elements of what happens in such a setting we would suggest there is less self-consciousness than one might expect in the map use we recorded. One reason is that in each of the clips that we will follow we had been filming the subjects in advance to get them used to the presence of the camcorder, for several days with the mobile workers, and several hours for the day-trippers. Moreover the filming was done in a low key way, which also explains some of the poor quality of the framing since only one mini-camcorder was used and the authors would get involved in other tasks while holding it.

There is a further spontaneity to the map use since maps and wayfinding were not understood by the subjects to be the focus of our study, nor was it at the time we were filming. As we noted above one project was on officework in the car and the other on tourism. Indeed the fact that we have examined map use without it being part of the *a priori* aims of our projects gives the material a certain strength. Conversation analysis tries where possible to listen to conversations, at least at first, in an ‘unmotivated manner’ (Have 1998; Sacks 1995) in order to hear what is there, rather than to begin by, say, searching for a research project’s object and then counting instances of items which correspond to that object (e.g. numbers of times X points at the map). To begin to hear and see what was in our data we met for ‘data sessions’ where we viewed and reviewed these short strips of video up to twenty times or more. Notes were made throughout the sessions which were tidied up and elaborated upon for this article. Transcripts were rendered of the talk and actions occurring during the clips using CA conventions developed by Jefferson (1984) and they are listed in the appendix.

The first clip we discuss comes from an ethnography of driving amongst professional mobile workers (Laurier 1998). It is of a saleswoman driving through London,

consulting a map during driving. In this clip we follow the planning of the next stage of the journey ahead, during the journey, in terms of parking, underground interchanges and its final destination. The second clip is from an ethnographic study of the practices of tourists once again and we follow the consulting of a map during the journey and planning for subsequent events.

Transcript one: Planning work travel without sharing the map

Video one: the mobile professional



Towards the end of a winter's day, Bridget is driving with the ethnographer (EL) through a western district of London. Her job with a wine company entails her visiting clients dispersed throughout London during the day and doing wine-tastings in the evenings. On this occasion her last client of the day has been out to the west, and the evening tasting is in the City of London. As we join the video-clip and transcript (see transcript), she is planning a journey from where we are now to where tonight's client is which will involve switching from the car to the tube (London's underground transport system).

E: Do you want the number or do you want the address

B: The address

E: is one hundred and nineteen Fenchurch Street

B: One hundred and nineteen Fenchurch

E: Do you think we're likely to be able to tube it

B: Oh yeah. We'll definitely tube it but I just wondered which tube stop to get off at, I think it's Bank. But I'm just [double-checking]

E: Right

B: I don't want to take all these things with us. It's too heavy to carry

E: Yeah:: You want to dump your:

B: Fenchurch Street, sixty two, '7E'

B: Monument. Uhm

B: Right we'll just get off at Bank

B: Get off at Bank and then we

E: Where are we now?

B: We're going to get the tube from Shepherd's Bush on the...

A first thing we note from this clip is that there are *two* people journeying together: the saleswoman and the researcher. Given that it is not a lone map reader with a destination, how is the work of consulting the map distributed? One of the things that should strike us as odd is that though the *passenger* was looking-up addresses for the *driver* they weren't also doing the map-reading. The categories driver/passenger, carry with them task prioritisations (Watson 1999), in that we would expect the driver's primary obligation is to driving and the passenger would take on navigating. Classes or categories (Sacks 1974) arise as part and parcel of any activity, in the case of car-driving producing the omnirelevant categories: driver/passenger.

In this case however there is an asymmetry that needs to be mentioned: the *passenger* (Eric) is a *visitor* to London and is not expected to be competent in finding his way across London. For example, he asks: 'Do you think we're likely to be able to tube it' and 'Where are we now?' He has visited London a few times whereas the driver has lived there most of her life, driven across it for years, knows where she can take her car, where the worst roads are, where she can park her car easily and/or cheaply, knows the geography of the Tube (compare this with (Heath, Hindmarsh, and Luff 1999)), as Londoners do, in terms of 'real' distances between stations, busy & quiet stations (and at what times with what kind of passengers), walks through stairs and connecting tunnels, frequencies, reliability, comfort and current tube problems (repair work, closed entrances and so on). They have mutual awareness of bare biographical details, which is combined with further workplace asymmetries. The *passenger* as an *observer* of the travelling sales person's job has a very limited knowledge of the company's distribution of clients. He has only journeyed between a few of the client's venues. By contrast, the *driver* as an *experienced employee* has made her way to visit all of her clients many times over. In relation to each client, she knows where she can get to by car, where she can park her car, what the 'real' distances are from close tube stations. In other words she is well versed in the geographies of London and her clients, though when she plans a route she still has to do some sort of spatial analysis³.

Let us look at the extract again in some more detail:

Transcript 2: Extract from Transcript 1

EL: Do you think we're likely to be able to tube it?

B: Oh yeah. We'll definitely tube it but I just wondered which tube stop to get off at, I think it's Bank. But I'm just [double-checking]

EL: +
[Right]



(12.0) ((driving))

(4.0) ((arrive at red light)) ——

B: (So) I don't want to take all these things with us. It's too heavy to carry

(3.0)

EL: Yeah:: You want to dump your:

B: =Fenchurch Street, sixty two, '7E'
((closes index and flicks through pages))

(6.0) _____



There is a long pause once Bridget has provided EL with notice of what she is doing with the A to Z, where she remains looking at the road (frame 1). The A to Z has been pulled out of the glove compartment and is 'ready' on the steering wheel for her to look at as soon as she can find an opportunity in the traffic ahead. Traffic lights (frame 2) provide just the opportunity she needs to read the index, get to the right map page "sixty two, 7E" where she can begin her double-check. There is a glance at the lights and traffic behind (frame 3), a glance that is used to establish what is happening and whether there is something arising that needs dealing with in the next few seconds. It is thus a glance that falls at the end of searching the index with the page and coordinates said aloud, while she tidies up the dog-ear (the fingers at work in frame 3). A glance that checks to see whether she has the time to get on with the next stage in the sequence, looking at the street plan.

A huge quantity of names are collected in the tightly printed index of the A to Z and getting just the right one out is a skilled practice of reading (Livingston 1995). Of course it comes pre-assembled for searching – A to Z, in a *columnar alphabetized layout*. Nevertheless Bridget does not have all the time in the world to browse up and down its columns, she is in a *hurry*; she is squeezing this extra task that organises the next stage of the journey into the opportunity that stationary traffic provides. To find the time to search she has to locate these upcoming pauses in the flow of traffic such as jams and, in this case, traffic lights at red, that she can use to do her planning with the A to Z (Laurier 2002; Laurier 1998). In the sequential assembly of her spatial inquiry, she now has the street name, a page number and a grid reference to hand for its next more 'spatial' section.

Transcript 3: Extract from figure 1 in more detail

(6.0) ((places thumb on map))

B: Monument. Bank _____

((flips over A-to-Z to look at tube map))

(10.0)



B: Right _____

we'll just get off at Bank

(12.0)

Drives forward and then comes to halt again in short traffic jam, Bridget returns to map reading



B: Get off at Bank and then we'll::

(3.0) _____

(9.0) ((finger to temple))

(2.0) ((flicks over spine for a second before closing the A to Z))



EL: Where are we now? _____

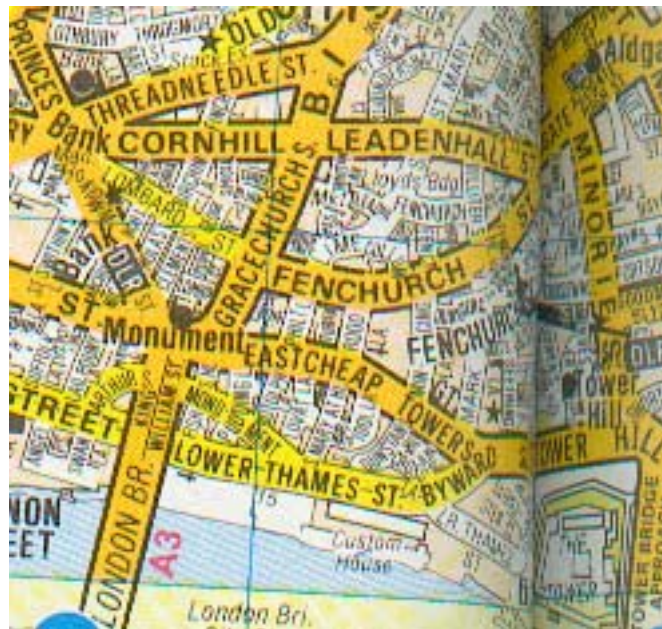
(1.0)

B: We're going to get the tube from Shepherd's Bush on the Central Line



The first use of the street map is to check on the two closest stations to her “147 Fenchurch Street” – “Bank” & “Monument”. Marge’s thumb (frame 1) is used skilfully to both grip the book and as a placeholder for her gaze in the incredibly dense and tangled arrangement of street names (see figure four). Preceding the place holding that her thumbs does, her index finger runs along the grid numbers, then withdraws at the correct square, leaving her gaze on it. Her finger helps her to ‘read’ the grids and then her thumb helps her looking rove around and then return to Fenchurch Street locating the closest tube stations. We can compare this digital overlaying with the way a bookmark or traversing finger helps a child when they are learning the skill of reading lines of text in books. The city street map of London, as we noted already, is considerably more challenging because the text runs at odd angles, cross-cuts and so on. Examining the surroundings of “Fenchurch” requires an ambulatory look around the small zone anchored by the finger.

Figure 4: Map of London



Once Bridget has extracted ‘Bank’ and ‘Monument’ from the street plan she flips the A to Z inside out to look at the Tube Map. Famously the London Underground map is arranged topologically: each node connected by different coloured lines. It record no comparable ‘distances’ between stations but rather marks out how each is connected to each. As the skilled user of the map knows stations may be much closer or further apart than they appear on the topological map. Bridget does not have to analyse the tube map in all its detail. She looks at it with a Londoner’s learned vision, and sees the lines that Bank and Monument are on as indexing rapidity or delay, sees the good and bad connections between those lines and Shepherd’s Bush. Her analysis of the tube lines is done in terms of a *direct* line to there from here, or *two* lines, and if two she analyses the stations that offer *connections* for the ones that she knows are *good* or *bad* connections. A good connection being, say, stepping off at the same platform as the connecting service arrives at, rather than having to climb steps and walk through a 300 metre tunnel to the other platform (Timpf 2002). What is of great

import is to find features of her journey that do not fit well together or will delay, divert or otherwise slow down her intended journey. In other words she knows how to look at the Tube map as Londoners do, in terms of 'real' distances between stations, busy & quiet stations (and at what times with what kind of passengers), walks through stairs and connecting tunnels, frequencies, reliability, comfort and current tube problems (repair work, closed entrances and so on). Once again EL has no such local geography of Tube stations and so simply cannot do these kind of calculations.

Once Bridget has located the best tube station in terms of lines and connections from 'here' to the proximity of 147 Fenchurch Street: 'right, we'll just get off at Bank', the next step in the sequence is her return to the street plan for a second time. The demands of driving interrupts as she has to look at the traffic and the road while she drives through the traffic lights. It is not long though before the London traffic comes to a halt. The second check is then resumed: "get off at Bank and then:." What is nice is that again she uses her thumb to hold "Bank" for her looking, though this time withdraws it after a few seconds. We can see her still looking intensely at the area of the map the finger has left (frame 3) with her index finger rubbing her eyebrow – visualising/displaying her 'thinking' and holding EL at bay a little longer. At this point her looking is running back and forth between Fenchurch Street and "Bank" and collecting the names of intervening streets. You can do this yourself by redoing what she is doing using the inset map. If you have looked inquiring into "how to get from "Bank" to "Fenchurch Street", then you should collect "Lombard Street." If you really try to put yourself in Bridget's shoes, then you should have extracted instructions for later such as 'third on the left when I come out at the junction' and perhaps 'towards the river', 'Lombard becomes Fenchurch when I cross Gracechurch.'

When we say that Bridget is 'thinking' this is nothing special in terms of cognitive processes but rather the 'silent' involvement in a task and the equally silent use of language to produce her instructions. A silent use which you will likely have shared if you tried to do what she was doing at the end of the last paragraph. Her publicly available pre-occupation with her task is exhibited as over in the closing of the A to Z. One way that we can see this in the transcript is Eric who has not attempted to speak since being cut-off by Bridget saying aloud of grid squares in segment 1, sees it as that and only then tags on a topic-relayed query, "where are we now?"

Let us summarise the significant process of the way-finding that Bridget has to do: she has to plan her route by getting items she will need from *several* representational formats and moreover translating them between. This process began when the passenger read Bridget her client's address which she then took to the index, then, from the index she took the page number and grid reference to the A-to-Z street plan, then, from there, she took the proximate stations to the Tube map, then, from there, she takes 'Bank' back to the street map, then from there she produces relevant indexical directions for recalling when we appear out of Bank station that evening. Clearly it would be misleading here to consider what she is doing as a 'brain comparing internal and external representations', more than anything Bridget as a competent map reader and member of her workplace is transforming and translating between four densely and distinctly organised formal systems (e.g. client list (table), index (alphabetised columns), street map (Euclidean plan view) and tube map (topological map))

The maps have been prepared as stable formatted objects relating and articulating London in different ways and to allow these different operations. By calling the map here a 'representation', by looking for private mental processes of representation, one greatly simplifies the many connections between the map and the streets she will move through, connections which cannot simply be correspondence. In short we lose the very setting which furnishes the sense of the actions and the criteria for their success or failure. The test of whether Bridget has done this correctly will be if she gets lost in London not whether she gets lost inside her head. The different maps she uses are different instructions for action in space, instructions fashioned with a mind as to how they will be used to get between places.

To return to the instance at hand, Eric asks 'Where are we now?' (see transcript Line 15) a question that has its sense *in the journeying*. Bridget's response is 'we're going to get the tube at Shepherd's Bush'⁴, she does not hear the question as asking 'tell me our current geographical location' (though that is one of the sense it could have). Eric's question 'where are we now' arrives at the end of a lengthy investigation of 'how to get *there* from *here*' which involved finding *there* then *backtracking* to *here*. As Weilenmann (2003) points out, we are formulating topic (see also Schegloff below) so that a 'where are we' is treated as 'what are we doing next?' There is a particular sequential logic in having a *destination* and there are particular kinds of journeys that have destinations. We want to go to Paris, how do we get there, rather than: we are in Edinburgh, where can we go? So destination is used to formulate how we will get there.

In response to the passenger's query (Line 5) as to whether they will be able to tube it:

"Oh yeah. We'll definitely tube it but I just wondered which tube stop to get off at, I think it's Bank. But I'm just [double-checking]"

Bridget sets up what she is doing by consulting the A-to-Z as *double-checking*. In doing her double-check Bridget expresses her doubts aloud about doing her inquiry unassisted by the map 'I think it's Bank'. She does not in fact remain silent once she has the map out, speaking page numbers, tube stations as she sees them on the map, and grid references and saying what she finds on the map as a result of her inquiry: 'right we'll just get off at bank' (Line 13). Notice how by reading aloud Bridget can use Eric if she forgets or gets lost – she could forget the grid reference and ask Eric "where am I?" (and *not* mean geographically).

The A-to-Z for even the experienced Londoner is drawn upon to settle *uncertainties* in planning their journey ahead. It is used to organise how to get from a determined *here* to a determined *there*. What the A-to-Z lays out before a Londoner like Bridget are the possible routes to be taken and helps make visible gaps and problems. The key thing about these maps then is not that they are representations but that they offer to the skilled reader multiple sets of instructions for getting around.

Planning a fun day out while sharing the map

Figure 5: Video two, the friends' daytrip into the countryside

In this transcript four friends, the ethnographer (Barry), Jane (on the left), Fay (on the right) and Lou (in the driving seat) are in a car driving out of the city into the countryside for a daytrip. While they drive they are planning what they are going to do with their day. Before this clip there is some initial planning around some recommendations given by a friend (Susan) about a few places worth visiting (photos listed in square brackets):



Jane: [1] Right it's got to be either loch ern or loch tay [2]

Fay: I know there is a loch aber somewhere

Barry: Did Susan give us directions?

Jane: I think. [3] So what was Killin bit where was

Fay: [4] Killin [5] was

Jane: Yeah but what's?

Fay: Now she says that's where the, the pub is, is it, or?

Lou: That's where the waterfalls and the walks are

Jane: Cos the pub was by a loch [6]

Lou: Well there's a loch with a nice pub too

Jane: Is that separate though from killin

Lou: Yeah killin is further on

Jane: and it must be loch ern

Fay: so [7]

Jane: Must be that. Which is. Which is there. [8]

Fay: Yeah well this road [9] goes up over to there [10]

Jane: yeah

Fay: and that road there [11]

Jane: It's not much further

Fay: Ah well. Let's just drive, see what happens

Our second extract starts from a quite different situation, but with a map still visibly in the hands of a car passenger. Here we have a group of friends on a day out planning their trip together. There are two back seat passengers and non-locals (Fay and Jane) looking for "Loch Aber" on the map. At first Jane uses the index (see below in more detail), and cannot find the loch listed there. This does not end the search, since water features are not included in the index of the road atlas they are using. On searching the map and failing to find Loch Aber, Jane decides that the friend in recommending must have meant "Loch Ern" or "Loch Tay" - she points at a loch on the map and says "it's got to be either Loch Ern or Loch Aber". In doing so Jane is attempting to make sense of what is otherwise a meaningless suggestion - they are repairing a confusing suggestion. Our interest here is now Jane has analysed the map and produced two candidate lochs that have to be the correct ones.



↓
Jane: Right it's got to be either Loch Ern or
Loch Tay

Fay: I know there is a Loch Aber somewhere

Barry: Did Susan give us directions?

It is by using the journey as the device to analyse the map that the limited collection of lochs in Scotland is produced. Jane assumes quite sensibly the “journey” will be the same device that Susan will have used to produce places worth visiting. Fay’s response works on clarifying the import of Jane’s statement by noting that there is a Loch Aber somewhere, where one solution to their troubles is that Loch Aber does not exist at all and another being that Susan simply gave the wrong name for one of the two lochs they will pass during their journey.

While the group does not realise it, “Loch Aber” probably means “Lochaber”, a name used to describe the area of Scotland around Fort William. Lochaber, is not actually a loch, but an area of Scotland - it is Jane who is making the mistake in searching for a loch. Yet, although it is tempting to want to check the map and provide the correct *answer* as to where the day-trippers are, we would warn against this understandable analyst’s response to groups who are having difficulties finding the way. To re-iterate, our interest is in how, at the time, with what they had in hand, without our help or correction or criticism, with the time they had, the day-trippers use their map. At issue is not researchers judging and supplying what is *correct* after the fact, finding the failures of their research subjects. The issue is how the day-trippers get on and get along – the problems *they* find, rather than the analyst’s problems which we bring later.

Although Jane takes the lead in reading the map, she also shares the map with another non-local (Fay), and talks to the driver (Lou) during the clip. As the ‘main map reader’ Jane has certain responsibilities: if they get lost, it is she who would be held responsible since she was the one reading the map. Yet while she shares reading the map with Fay, she nevertheless remains the person taking the lead in finding and working with the map. In reading the map there is a ‘*moral incumbency*’, perhaps not as extreme as the mapreading of a reconnaissance unit in the mountains, yet the day-trippers could find themselves lost in the countryside. As part of the social nature of mapreading the responsibility for navigation is distributed between members (Hutchins 1995; Watson 1999).

Figure 7: Extract from video 2

Jane: I think

((Jane looks down at map))

So what was Killin (bit)? where was=

Fay: =Killin →

was= →

Jane: =Yeah but what’s?

Fay: =now she says that’s where the, the pub is, is it or? ((does she withdraw her finger on the map?))



Lou: That's where the waterfalls and the walks are

Jane: Cos the pub was by a loch -----
----->

Lou: Well there's a loch with a nice pub too

Jane: Is that separate though from Killin?

Lou: =Yeah Killin is (.) further on

Jane: and it must be Loch Ern



A fresh investigation of the map is quickly initiated through Jane's "I think" and her gesture of looking down once again at the map. "Killin" is a further name on the list of placenames they have been given by Susan. Fay steps in with "Killin", a proper noun rather than a pronoun which assists in maintaining the orientation for what will follow.

Her turn: 'Killin was (blank)' is recognisably completed by her pointing from a distance to the map and, then, touching a spot with her finger, thereby bringing in a closely located "domain of scrutiny" (Goodwin 2003) within the graphical field of the map. As Mondada (Mondada forthcoming) notes the action of point is also used for her to maintain her position as a next speaker alongside the topic of her remark. So when Jane asks 'but what's?' Fay's finger continues to hold "Killin" on the map and queries whether the "pub" is there. By doing so she also shifts topic slightly from an inquiry as to where their recommendations are to what they are, though this is already projected from Jane's "what" in the first line of the transcript. Note how Jane (frame 4) has pulled back from her previous posture of close scrutiny above the map. Her position is seeable by its relation to her earlier stance, sustaining an orientation to it while exhibiting that what is being done has shifted away from locating features on the map (Sacks & Schegloff on 'home' position). In these ways Fay shows engagement in consulting the map without being rude to Jane, or seeming to question her map reading skills. In avoidance of 'hogging the map', in helping one another find where 'we are', the consultation of the map then finds itself bound up with the ongoing production of friendship.

Unlike our earlier example it is the driver (Lou) who amongst the group is 'the local'. Amongst the aspects of the wayfinding in play, unlike Bridget on jam-packed city centre roads, the daytrippers are in fast moving traffic consequently Lou is devoted to traffic. Moreover as we noted above these travellers are members of the same classes – 'friends' and 'daytrippers'. Nevertheless Lou is still involved and once the topic shifts away from where on the map things are, to what can be done at each place she can become involved. Thus, once Fay has asked whether there is a pub, Lou adds "that's where the waterfalls and the walks are". Jane recalls the pub was by a loch and Lou is able to clarify the import of the recollection by revealing that they are dealing

with two separate items now: Killin and the loch with a pub nearby⁵. Jane's next turn displays that she has understood Lou's two items but also crucially offers a return to their location as a topic. While there are now two items, are they co-located or are they in two distinct places (e.g. 'separate'). This is taken up by Lou when she positions Killin as further on from the loch with the pub. At this point from their collaborative recall and locating things are coming together for Jane on the map and she exhibits this as she finds that the loch with the pub "must be Loch Ern".

Accountability is visible in details of how the map is positioned – when closed it lies on Jane's lap, and although she opens up the map and makes it available to Fay (who uses it to point at), she does not move the map to the middle between them. By placement of the object Jane retains the role of the main map reader, yet she involves her friend in ways reminiscent of Bridget (see above). In reading aloud the names of places she makes it publicly available where they are on the map. This allows Fay to visually 'follow through' the working which Jane is doing, to *see* what Jane is looking at. Confirmations of what they are seeing in common is marked by gestures: they point at features and bring out routes, otherwise immersed in the tangle of marked roads on the map, with points and sustained followings of their fingers. In doing this naming and pointing together, should Jane make a mistake, Fay can correct her and vice versa.

The recollection of names of places that they have been recommended to visit is also shared between the two of them – if Jane forgets where something is Fay can intervene. This shares some of the task of remembering the route and the places on the route as they plan. Unlike Bridget, who used the map to check her first guess at a route, Fay can 'check Jane's working', as a form of double entry book keeping, with one person checking the other. The two map readers here, and Bridget in the last example, both show their awareness of how frequently we make mistakes with maps.

In the video clip the friends are not only talking about different places and finding them on the map. The friends are building a *joint description* of the daytrip's geographical features through their conversation, highlighting some features over others. Yet the description that they produce is one which is specifically tied with what the friends are intending to do: it is a 'car-day-trippers' formulation of a set of locations and leisure activities. Again, we hesitate from calling this a 'representation' since to us this obscures what are the most interesting features of the talk of places on the map – how do they produce their description and how do they work with this description to do what they want to do. The important issue is not the imaginary (and circuitous!) strings between 'the world' and their ad hoc description, but how they manage to get a sense of the road ahead and their possibilities for action.

In the description they produce from their extended talking through their recommended places and what they can find on the roadmap, there are, in the end, only two places joined by their journey on the road. However they produce a description tailored to the journey they are making right now. From the directional properties of their journeying onwards they have analysed which place comes *first* and which *second*. The first/second sequence is a *transformation* from the map's relational web of inscribed features to the order they will go through these places in the car.

The order in which the places come in their list is the order they will approach them on the road. Indeed, if the pub is the second place they will come to, then this has

consequences for planning lunch in relation to walking. What they are assembling is not just where things are but *what to do* at particular places (e.g. that place has a pub) and in what order travelling from ‘here’ they will come upon that place (e.g. it’s our second stop). In so doing not just any ‘references’ are used to ‘represent’ a place since as Schegloff puts it:

The “problem” of locational formulation is this: For any location to which reference is made, there is a set of terms each of which, by a correspondence test, is a correct way to refer to it. On any actual occasion of use, however, not any member of the set is “right.” How is it that on any particular occasions of use some term from the set is selected and other terms are reject? ... I seek to direct attention to the sorts of considerations that enter into the selection of a particular formulation, considerations which are part of the work a speaker does in using a particular locational formulation, and the work a hearer does in analyzing its use. p81 (Schegloff 1972)

More than map reading

In some ways the backseat readers’ actions could be taken as an example of ‘hesitant map reading’, in that they are very tentative about the different places and what they mean. Yet is important to realise that as well as map reading, the group are deciding amongst themselves what they are going to do today *as friends* (and not as soldiers nor architects etc.) Talking about the places and activities is part of settling on possible future activities. An overly confident map reading could be heard as an inconsiderate decision about what they will do: their hesitancy is hearable as the friends offering space for each other to discuss what they do that day. They pause, then discuss the different possibilities, opening up what they might do and using listing as a way of being considerate of each other’s responses.

In talking the friends are not only producing a description: they are also working-up a negotiable inventory for the daytrip – in their discussions there is a set of *activities* which are tied to each place. Each place is described in terms of what day-trippers might do: waterfalls, walks and a pub. So in describing places, putting them in order, and describing the activities that are available they produce a plan for their day. Note that at this point in the journey they never settle on a *destination*, which also entails that they do not decide which of the activities at this point they will do, only that the places and what they can do there will appear in a certain *sequence*. By bringing up their each place *tentatively* they allow others to express a desire or interest in each of these activities, to gradually come to an agreement on what would be fun for all of them. The ambiguity of their conversation is not a problem for the friends, rather it is a feature of the geography of the route they are producing, one which weds the plan to their activity.

The friends’ planning is ‘satisficing’ (Simon 1955)⁶ and ‘economical’ (Sacks 1995)⁷ in that the plans are ‘good enough’ rather than detailed plans of activity. Indeed, this plan is *deliberately* ambiguous so that it can be further formulated later in the journey when that journey brings them more details (e.g. seeing the outside of the pub from the road). The way being made here is deliberately designed to be only as specific as necessary. To the friends, they need only list the place and the activities knowing that decisions on what exactly to do can be made later, perhaps not until they are actually in the places mentioned and can pass their judgement on the “nice pub”.

As Suchman argues, plans do not determine behaviour, but are used flexibly in handling future events, and become a tool for making sense of one and others' actions (Suchman 1987). In this case the recommendation is a form of plan given by Susan. Various decisions can only be made when one arrives in the situation for which plans are made. Planning the complete route in advance using a map would be impossible and if attempted cause havoc, since there is always some detail which is unspecifiable in advance. If the friends continued to search for Loch Aber until it was found then visit it, it would likely have caused serious problems for their day out. Plans involve *ambiguous* routes, which lead to picking a specific route by using road signs when one is driving, asking locals for directions, searching for other locatable items (Loch Ern and Loch Tay), phoning a friend and so on.

This is an essential feature of tourist visits, their 'prospective/retrospective' nature, involving planning ahead, looking back and revising those plans, then planning ahead again. Even on the most pre-planned tourist visit, what is going to happen on the trip is unknown until it actually happens. Holidays are often beset by changing circumstances, or by discovering what a place is 'really like' when you get there. As a holiday unfolds and plans are actually carried out the blanks in plans become 'filled in' - they become specific. When a holiday is complete, and one looks back at what actually happened a holiday can then appear to have been planned and orderly, since at this point one knows 'what actually happened'. Indeed, in interviews tourists often given accounts of their holidays which are replete with order, "we did this because of this" (Edensor 1998). Yet when one is actually at the point of deciding what to do, tourism is better characterised by its uncertainty. Tourism is a *discovering* experience since one cannot avoid coming across the new and unexpected. As your travel to the airport you do not know for sure - in advance - that your flight will be on time. At the heart of tourist problems then is the simple fact that travelling is a literally a journey into the unknown.

At the end of the transcript, the friends summarise this in their own analysis: "let's just drive see what happens".

Conclusion

Harvey Sacks (Sacks 1995) worked on some conversations for over five years (such as his transcripts of therapy sessions), reminding us of the incredible richness of real-world data. While the reader may feel we have laboured our two examples, in some ways we have only barely touched upon our examples, the settings, and activity being studied.

For example, we can only briefly mention the internal configuration of the cars and how this effects the organisation and interactional in that space (Mondada forthcoming; Miller 2001; Juhlin 2001). Map consultation has to be done in ways appropriate to the mundane spatial arrangement of the car, its particular side-by-side and 'airline seating' space (Mondada forthcoming). The pointing gestures, glances and looks that we expect in face-to-face conversation cannot be used to organise talk nor to produce convergent seeing in quite the same ways. For the two backseat passengers, sharing the map and having no driving duties allows a quite different form of map use that for our first example. There is also the side-by-side arrangement with their gazes focussed on the map in front of them. The map is 'where the inter-action is' as fingers and thumbs get used in the extraction and constitution of items required for the journey and moreover to organise the conversation between its viewers.

Goodwin's (2003) work on archaeologists picking out features in trenches and Hindmarsh and Heath's (2000) work on engineers looking at screens and documents has a similar focus on the use of looks as directional objects themselves and as responses to pointing and talk in constituting professional objects.

Maps are difficult artefacts to read and follow and in using them we bring together a range of different contingences. They have an excess of rambling instructions and far too much detail for seeing the specific route that you want immediately or without inquiry. For the unit in the alps finding their map was a profound and puzzling occasion worth commemoration in poetry. Pulling a map out of their pocket was about organising themselves and setting off together, that got them home despite the map having no correspondence with the mountains. Bridget's occasion is double-checking with there being no time for error and a desire to get to her evening appointment as quickly as possible. There is no doubt about her destination only how she will get there. The map is a calculator of distances, start stations, end stations and connections.

In contrast, for the day-trippers there is no definite destination – indeed they are working up what they can do at each destination and what order they will meet them. There is no great urgency, they might end up somewhere else other than any of the places they have listed, a surprise might be a good thing - as they say, 'Let's just see what happens'.

In each of these examples map reading is irretrievably immersed in the organisation of specific social settings, be they workplaces, holidays, competitive sports or military reconnaissance. Far away from the individualised inner worlds of cognitive skills maps are positioned to share the tasks of map reading amongst members of a group, distributing rights and obligations on consulting the map, reading addresses or/and instructions, consulting the scene and driving the car. The mapreaders described above share their maps and working without the need to refer to their private 'mental' maps. Indeed, their wayfinding is not a hidden feature of their cognition, but rather is publicly available, transparent, accountable action.

It is not that place names and icons on the map do not 'represent' the world, but rather that they make sense of in the lived work of planning 'what we will do today', or 'what's the quickest way to Fenchurch Street'. The question for map readers is seldom 'what is the world like?', but more 'what can I do?' Map *reading* is not just reading but something bound up with the journey and the necessities it provides of finding or looking out for particular things here and now or by a certain time of day.

Using the map can never be reduced to a step by step plan, it cannot be reduced to rules which produce the wayfinding, it cannot be reduced to 'scripts' that a human simply acts out nor any of other ways human life is bypassed while producing verifiable hypotheses etc.

Our map readers can and do learn enough (not all nor everything they could) from their maps to find their way and plan their day. This is not to say that they each build their inner representations of the map, or of the places they visit, but that they find instructions for journeying and learn particular things about new places. The difference is subtle but important – in one version of mind and maps we have mini-representations inside the *head* only ever indirectly accessible, somehow being read,

in the other we have publicly available activities inside the *car* that collectively ‘do navigating’. While the post-Cartesian move (such as Coulter’s (1983) or in a very different way Potter and Whetherell’s (1987)) takes research on actions, such as map use, away from cognitive science, the aim here has not been to re-settle these deeply contested conceptual issues. Instead we hope to have shown how an alternative approach can motivate the beginnings of a fresh view of ‘empirical’ projects.

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Appendix – Transcription symbols

[hi]	
+	overlapping speech
[hello]	
(3.0)	pauses in seconds
it <u>was</u> today	speaker emphasis
((<i>hand goes up</i>))	non-verbal actions
=	latched speech
(sauce/source)	uncertain transcription of words

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¹¹ Originally published in the TLS (1977) and quoted, p54 in Weick's (1995) book on organisations.

² For a formal discourse based version see: (Prévoit 2001)

³ Additionally Bridget (as a research subject in a study of car-based workers) is being shadowed by Eric (as an ethnographer) and consequently is supposed to be going about her job as she 'normally' would, which would mean planning routes with an A-to-Z, whilst stuck in slow moving traffic, *without the assistance of a passenger*.

⁴ One ethnographic detail – Shepherd's Bush is within walking distance of Bridget's flat. Its relation to her (as member's) planning is thus that is her home tube station. Were she to drop off the car at some other tube station closer to where we are now, then she would have an extra tube journey and an extra walk first thing in the morning to collect her car from where she had left it. Switching at her 'home' tube station, even if it is a longer drive, leaves her car where she can walk to it the next morning. She has a keen awareness of the parking areas around her flat and the nearest tube station. Parking will thus be faster and more likely to be in the vicinity of one of the places that Bridget will be tomorrow morning (her flat or the tube station).

⁵ See (Hindmarsh et al. 2000: 546-552) for an excellent exposition of the detection of misapprehension as possible through ongoing displays of orientation to an object.

⁶ While we would not follow Herb Simon's conceptions fully his work is of importance for how his notion of satisficing starts to break away from a simplistic model of the rational actor (and, of course, his Nobel prize in economics).

⁷ Sacks himself was interested the economies of turn of talk and how indexicality rather than being 'trouble' and in need of clarification was necessary and logically used by ordinary speakers.