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Verbal planning in route directions

This study is part of a larger project that is undertaken at the Max-Planck Projektgruppe "Psycholinguistics" at Nijmegen. It deals with the role of situational and verbal context, on the one hand, and with complex language production on the other. More specifically, I am interested in the use of deictical expressions, as a particularly important type of context-dependent expressions, and in the way people perform complex verbal tasks. In the present context, I shall only be concerned with the second aspect, namely with complex verbal actions in which certain tasks are solved.¹

By complex verbal action, I understand activities like giving a talk, telling a narrative, explaining a game, describing an apartment, arguing together, etc. In general, several participants, at least two, are engaged in such an action, but their roles may be different. According to that, I classify them into basically monological and basically non-monological ones (giving a talk is basically monological, arguing together is basically non-monological); a complex verbal action might indeed be composed of several passages, some of them being monological, some not. A second subdivision follows the type of information to be presented or elaborated: it may prestructure the verbal planning to a high or a low degree. Narratives are strongly prestructured by the temporal order of events, explaining games is weakly prestructured; that's why most people soon get confused when they try to explain a complex game. In the weakly prestructured case, people typically try to introduce some temporal ordering, for example by following the running of the game, by imagining a tour through an apartment (Linde & Labov, 1975), and so on.

In the following, the planning of such an action is considered in more detail. In English, there seems to be no standard term for the complex cooperative verbal action that consists of asking for route directions and giving them, as for instance "Wegauskunft" in German; in the following, I will call this action "route communication." One of its characteristics is the clearly asymmetric role of its participants that is reflected in the verbal tasks they have to carry out: the person who asks for directions

(henceforth F), wants to know something, and he tries to get that information from somebody that he thinks to be competent and willing to do so(=A).

F's initial tasks are:

- (a) getting into contact with A
- (b) making clear what he wants
- (c) effecting that A takes over the task of giving his directions.

If he succeeds, it is up to A to make clear to F how to reach his destination: he has the task of

- (d) describing the way (route directions proper)
- (e) seeing that F understands.

It is then up to F, who gave the task, to take it back and to conclude this interaction:

F has the task of

- (f) attesting to A that his job is done
- (g) acknowledging
- (h) ending the contact.

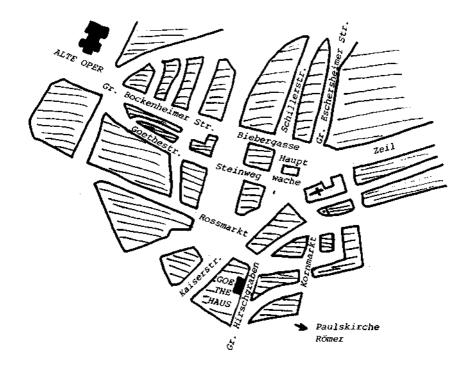
As a rule, these three groups of tasks correspond to a clear interaction scheme of successful route communications. In the first part ("introduction"), F is dominant from an interactive point of view: (a)—(c) are carried out. In the second part ("central sequence"), A takes over and becomes dominant: (d) and (e) are solved. In the third part ("conclusion"), F is dominant again: (f)-(h) are carried out. There may be some kinds of deviations. If F is not successful with (a), the whole action fails; if F is successful with (a), but not with (b), everything drops until (h). There may also be some overlaps or repetitions, but typically, a route communication follows this scheme.

Route communications are interesting from an interactive, a cognitive, and a linguistic point of view. They all are closely linked, of course; but in the following, I shall concentrate on the third aspect, with some remarks on the second one, when it seems necessary; nearly nothing will be said about the interactive aspect. Only point (d), the route directions proper, are dealt with here, because it is most yielding in the present context.

The study is based on 40 route communications in natural context. They were gathered in May 1977 in the inner city of Frankfurt/Main by students (cf. map below). At the upper Zeil, the main shopping street of Frankfurt or at the Hauptwache (a small historical building from the early 18th century), people were asked either for the "Alte Oper" or the "Goethehaus", both well-known landmarks in Frankfurt. The whole action was candidly recorded by a Nagra SNN audio tape machine. Approximately 100 route communications were recorded, some of them very noisy because of the traffic. The first 20 ones from each group (Alte

Oper, Goethehaus), if fully understandable, were selected and transcribed for further analysis; they are labelled as O1-O20 and G1-G20; a selection is given in the appendix. The transcription is in usual orthography, with some slight touches of dialectal pronunciation for some speakers. Pauses and parallel speaking is transcribed as accurately as possible. Sometimes, more than one person was answering; in this case, indices are used: A_1 , A_2 , etc.

In order to describe how to go from the actual point to the destination, A must have some cognitive representation of the area in question. In general, he owes his knowledge to his own previous experiences: he remembers what he has seen and heard and how he moved, or how the streetcar moved, and this remembrance must be structured into a cognitive map:³ he knows that at a certain place, there is such and such a building where he can turn left, that he can't cross the street there, etc. Two people may have different favorite routes, and their attention may be focused on different objects. They are surely objects which might be salient landmarks for nearly everybody (cf. Lynch, 1960), but whether the image somebody has of an area is marked by book stores or by fashion shops is individually different. Thus, cognitive maps may be



F

differently structured to a large extent. Moreover, they can be vague, incomplete, or even wrong in some respects. This can, but need not be relevant for route directions.

A's cognitive map is activated, at least to some extent, by F's initial request. What A has to do then is localize position and destination on his map. Such a segment of a cognitive map with position and destination localized will be called "primary plan" of the route direction. Localizing the destination is sometimes not easy, and it might involve complex strategies (cf. text G2 or the fantastically complex G1). The position in general raises no problems because it is in the domain of visual perception, whereas a great deal of what else is represented in the primary plan, for example, the destination in most cases, is not in the domain of visual perception; indeed, it sometimes happened that A looked or even went around to find out where he was, to localize his position. Building up the primary plan may be done in advance, or step by step. Consider G11:

```
F
    Entschuldigung, können Sie mir bitte sagen, wo's zum Goethehaus
Α
F
    geht?
                            Ja
             [3 sec] Goethehaus? ja, gehn Se da rauf, immer gerade
Α
F
                                                erste links, erste
Α
    aus, erste Straße links, erste Straße rechts
F
    rechts dankeschön
Α
          ja
```

A makes a planning pause after the question; then he reaffirms himself that he correctly understood the question, indicates that he is able and willing to answer; and then, he carries out his description in one stroke. When speaking, he apparently has a sufficiently clear primary plan; he is an "advance planner". His counterpart may be called "stepwise planner". A clear example is in G15:

```
A Ja; [10 sec] hier die Zeil runter, auf der andern Seite,
F
A ja [14 sec] praktisch gehn Se jetzt hier an [3 sec] eh [3 sec]
F
A Sie müssen wohl von hinten rüber, weil da ne Ampel is, ja; da
F
A hinter der Kirche lang; dann gehn Se rechts die Straße wieder
```

F grad runter und dann müssen Se bis zur [2 sec] wie heiß'n das? Α F Α auf der linken Ecke [4 sec] bis die ne Rolltreppe kommt, da is \mathbf{F} Α Möbel Mann, diese Straße müssen Sie links rein; und die erste F gut, dankeschön Α wieder rechts; also, auf der einen Seite ist, eh F Neckermann, Reisebüro, und auf der andern Straßenecke ist Möbel Α F Α Mann: die Straße links rein und dann die erste rechts.

Though reflecting at the beginning, A has no clear plan when he starts speaking. He soon comes to a point that proves to be problematical; he then reflects on the situation — he tries to elaborate his primary plan there —, restarts at the beginning, reaches again that confusing place, reflects again (two times three seconds), and then, he advances a little bit, until the next unclear position is reached; he tries to picture the situation there to himself, and then, he is able to go until the end. Thereafter, he has no problem of recapitulating a part of his description: the plan being there, he is able to repeat, to vary or to extend his description. He doesn't work out a complete plan in advance, but he starts speaking as soon as the beginning is clear, and he goes on step by step. Planning in advance and planning stepwise are complementary techniques, and it is open whether they represent individual styles or whether their use simply depends on the particular task. Having a hole in the conversation, and a long planning pause is such a hole, is awkward, and it may well be that A in G15 starts speaking simply because he doesn't like that hole

The primary plan, whether built up in advance or step by step, is a first condition for a successful description. But not the whole primary plan is reported, of course; it contains a lot of information that is superfluous for the purpose of the required route directions. The speaker must select from it and arrange those pieces of information he thinks to be relevant for the listener. He has to form a "secondary plan" which immediately underlies the linearized sequence of verbal expressions, by which A describes the route. The organizing principle of this secondary plan is that of an "imaginary wandering" from position to destination through the primary plan. During this wandering, certain points of the primary

plan are selected and marked; this series of "fixed points" forms the skeleton of his description. His directions have three components: fixed points are introduced, directions relative to the fixed points are marked, and actions (or events) are indicated. Consider the following passage from O4:

F [...] Ja, [5 sec] jetzt gehn Sie vor, bis ganz vorn hin bis Sie Α F an den Kaufhof stoßen dann gehn Sie links rein, die Biebergas-Α F also Sie gehen hier vor und halten sich dann ganz links, Α F dann kommt erst die Schillerstraße, die überqueren Sie Α da is F vorn an der Ecke is ein Herrenboutique, da gehn Sie dran vorbei. Α

The first fixed point after the starting position is the Kaufhof (a big department store); here, the wanderer has several possibilities; one of them is marked: "links rein". In other cases, alternatives are explicitly excluded, e.g. in 02: "oben drüber, nicht unten durch". This is not done here; only the correct direction is indicated; it is indeed given twice: by the deictic statement "links rein", and by the additional information "die Biebergasse"; A has taken over a unit of his primary plan that is not absolutely necessary but that is an additional help. Then, the route is repeated until a new fixed point is reached: Schillerstraße. In this way, point after point is selected, verbally introduced, and this skeleton is completed by some commentaries or some additional information that help make sure that F gets the message. And he got it if he has succeeded in building up a rudimentary image of the area, that essentially consists of a series of selected points, and if he knows what he has to do at these points.

This information is given by three types of descriptive expressions ⁴ the speaker uses: expressions that introduce fixed points, deictic expressions that link certain actions to certain fixed points, and expressions for what F has to do there or what happens there; in a sequence like: "... to a small house with green shutters; there, turn left", a fixed point ("a small house with green shutters") is introduced; the local deictic "there" refers to that fixed point, or rather to a locality close to that fixed point, and then, it is said what has to be done at the denotatum of "there".

This is an invented example. How the information is really encoded in route directions, is much more complex, but highly informative for an understanding of language as it is actually used. This is indeed not my topic here.⁵

Appendix

Selected route communications

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Ol:
    Können Sie mir bitte sagen, wie ich zum alten Opernhaus komme?
F
Α
F
         zum alten Opernhaus
    wie?
                              zum alten Opernhaus; gradaus, net;
Α
F
                                     ja ja
                                          [10 sec] hier vor bis zum
    kommen Sie, ich zeig's Ihnen grad
Α
F
                                      jaa
    Kaufhof; rechts is der Kaufhof, ja? un da halten Sie sich rechts,
Α
F
                                 ia. die eh
Α
    gradeaus durch die Fressgasse
                                           die wird neu
                                                          also is
F
                                        mhm
Α
    ganz neu gestaltet, die Fressgasse, ja
                                             da kommen Sie direkt
F
                                              dankeschön, vielen Dank
    auf den Opernplatz, also zur Opernhausruine
Α
02:
F
        Zum alten Opernhaus?
                              jaaa [10 sec] da gehen Sie jetzt
Α
    Ja?
F
                                                oben drüber,
    bis zur Zeil. oben drüber, nicht unten durch
Α
F
    ja
      oben drüber, gehen durch die Goethestraße durch, und dann
Α
F
                                       dankeschön
    kommen Sie direkt an die alte Oper
                                                   bitte, Wieder-
Α
F
Α
    sehen.
```

010:

 A_2

Wir suchen's alte Opernhaus oh [5 sec] ja, am Opernplatz, und Α F nein zwar, eh, kennt ihr euch hier einigermaßen aus? Α also, durch F mhm die Hauptwache durch, da wenn ihr jetzt links geht, ja Α ietzt F mhm müßt ihr ne Unterführung nicht hier, sondern die nächste, ia Α F durch, ehm [5 sec], eh, bißchen kompliziert; also dann geht ihr Α F ganz die Unterführung durch; dann macht ihr mal'n Bogen Α F und da fahrt ihr ne Rolltreppe wieder hoch; dann lauft ihr gerade-Α F ja okay aus, aber am besten, ihr fragt dann nach'm Opernplatz Α da F Α kennen sich die meisten aus. Gl: F Können Sie mir sagen, wie wir zur alten Oper - eh zum Goethehaus A_1 A_2 F kommen? Goethehaus, Goethehaus, eh Goethehaus; kennen Sie A_1 A_2 F A_1 das Goethehaus [zu A₂] Goethehaus, ja, hinten, da hinten irgendwo, A_2 F ja aah, Goethehaus A_1 wo die Kirche is, da hinten die Paulskirche A_2 gell F ja ne, ne [2 sec] wo A_1 da is's Goethehaus wissen Se wo die Paulskirche is?

$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	die Paulskirche is da is das Goethehaus; is das wo die Paulskirche is jaa
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	da wo? da is doch der Römer ja is der Römer, ja da müssen Se hin
$egin{array}{c} F \ A_1 \ A_2 \end{array}$	ne, ne, zum Goethehaus da is das Goethe- wollen Sie zum Römer ja
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	jaa Goethehaus Goethehaus, des is in der Nähe vom Römer da müsse,
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	is das auf dem Platz? Sie müsse da hin auf dem Platz, ja, nein, in
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	sehn Se, ich weiß das auch nicht eine Seitegass rein, eine Seitegass
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	ganz also, kommen Se, kommen Se ich geh sowieso also, ich kann, doch ich weiß also, auf n
$F A_1$	nee, wir
A_2	Römer müssen Se; Sie müsse da rüber wo die Paulskirche is
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	wir wollten erst nochmal woanders hin wir wollten nur schon mal
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	wissen, wo's is, ja' so ich will mal so sagen, ich glaube Sie ach so
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	müssen hier durch, dann ja da kommen Sie durch, ja?
$\begin{array}{c} F \\ A_1 \\ A_2 \end{array}$	wenn Sie da runterkommen da kommen Se ungefähr doch ganz be-

F ia ja A_1 stimmt hin am Römer, da is die Paulskirche A_2 jaa, und da is ne, ja A_1 eine Seitenstraße geht da rein, gell ich mein vielleicht Sand- A_2 F ja, dankeschön. also ich bin ja überfragt A_1 A_2 gasse, ja ja, also da isses G2:F Können Sie mir sagen, wie man zum Goethehaus kommt? Α Goethehaus? F zum Goethehaus wissen wir eben nicht genau Goethehaus? wo? Α F nee, Großer Hirschgraben war das, glaub ich Α Goethehaus? keine Adresse? F Großer Hirschgraben, die Straße Wissen Se nicht, Α bitte? [5 sec] fragen wir nochmal. F

Notes

Α

- 1. For a detailed analysis of the former aspect, see Klein (1978, forthcoming).
- 2. This work has been done by Elke Habicht, Michael Kahn and Christa Reinhardt. I am very grateful to them.
- 3. No attempt is made here to define this concept; see for example Downs & Stea (1973) or recently Kuipers (1977).
- 4. The expressions used in the route directions may be subdivided into three classes, according to their function: descriptive expressions, commenting expressions and interactive expressions. The speaker may comment upon what he says, or on the difficulty of the task, or the way; typical are expressions like "oh, that's quite near" or "well, it's complicated", etc. With interactive expressions, A checks whether F got the message or simply whether F is still following his explanations, and F signalises that he is still "receiving" and that A can and should continue; a standard means is "mhm" with question intonation on A's side and with affirmative intonation on F's side. For some details cf. Klein (forthcoming).
- 5. I wish to thank Veronika Ehrich, Angelika Kratzer, Pim Levelt, Max Miller, Brigitte Schlieben-Lange, Jürgen Weissenborn and Dieter Wunderlich for helpful comments.