Plans But No Scripts: Planning, Discourse, and Interpretation in the Step Aerobics Workout*

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1   Introduction

The Step Aerobics workout is a highly formalised and institutional activity, consisting of an instructor directing a class of people, usually entirely consisting of women, in various activities involving a plastic bench a few inches high. In stepping on and off the bench in a variety of ways, the class hope to improve their fitness. The instructor shares this goal with them, and also wishes to ensure that they enjoy the activity sufficiently, or at least appreciate its benefits enough, to make them want to return to classes in succeeding weeks. By unspoken agreement, the class is almost entirely non-verbal on the part of the class members: they verbalise only the most formulaic of utterances in response to rare elicitations from the instructor. The instructor, for her[1] part, needs to give sufficient information to the class to enable them to act appropriately and on time, as well as providing pointers about technique, encouragement, and enough social smalltalk to create atmosphere in the class and some rapport between herself and the class members.

This paper is about the language of Step Aerobics workouts: the nature of the workout monologue and how it is interpreted. Although Step is a highly visual activity – if a participant is really lost, she can always watch what everyone else is doing – language plays an important role in enabling the class to keep up, as I shall show. The monologue both constructs and reflects expertise: some of it is comprehensible even to novices, and therefore serves to teach them what to do; some of it serves to exclude novices from comprehension, and therefore differentiates them from comprehending experts. Developing expertise, therefore, requires participants to make inferences from the ensuing activity to work out for themselves what the preceding language must have meant, or even what words it must have contained. This two-way link between language and action enables a participant to construct her own expertise, through getting lost and recovering, through linking language to action and vice versa, to allow her to arrive in the end at the desirable position of understanding the monologue completely, and acting expertly in response to it. This

[1] Since all the participants in Step Aerobics are normally women, I will use *she* throughout to refer to everyone involved.

variation between novices and experts means that some utterances are interpreted in completely different ways, depending on experience. The workout monologue, then, is not 'parsed' in the same way by all participants, and is not experienced as the same discourse.

Although it might be supposed that workout instructional monologue simply consists of telling participants what to do — i.e. of utterances that are directive in function — the workout monologue in fact consists of five separate functional categories of utterance. As the title of the paper suggests, the monologue is entirely unscripted, although that is not to say that there are not phrases and combinations of phrases that the instructor has used many times, and therefore has 'compiled' in memory. What is planned, however, is a highly complex and structured sequence of activity that serves the fitness and safety goals of the workout, suits the fitness level of the class and is adjustable to deal with over- or under-estimation of ability, matches the music that has been pre-selected, and lasts the correct length of time. This is not a linguistic plan: it is a plan of activity which needs to be accompanied by language sufficient for the actions to be accomplished. However, the non-interactive nature of the discourse ensures that the functional characteristics of some speech acts – not the form of the utterances – can be predicted from the action plan. In what follows, I will show which utterance functions are predictable from the action plan, and which are not.

Section 2 below describes the background necessary for the study: a brief explanation of the planning of a workout class, and a description of the data used for the study and how it was treated. In section 3, I go on to introduce the taxonomy of five discourse functions elaborated to describe the data, how they relate to the discourse plan, and how they are interpreted, highlighting the crucial nature of beat placement – i.e. the timing of utterances in relation to actions, which are themselves performed in time to the music – in interpretation of utterance function. In section 4, I suggest conclusions and shortcomings relating to this data, introduce some related studies, and discuss some avenues for future research.

2   Step Aerobics, Plans, and Monologues

Step Aerobics[2] is performed as an exercise class with a single instructor positioned at the front of the class. Reebok (1990:ii) describes the activity as follows:

> The STEP REEBOK programme involves stepping up and down on an adjustable platform while simultaneously performing upper body strength training movements to the accompaniment of music.

The instructor stands in front of the class, usually facing them, and guides them in an activity that she has planned in detail before the class, generally conforming to the following four-section structure (Reebok 1990:9):

1. warm up and stretch

2. aerobic stepping

3. isolation work (specific chosen muscle groups)

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[2] The activity is variously termed *Step aerobics*, *Step training*, or *bench training*. It was first introduced as the *Step Reebok Program* by the Reebok company. It is often referred to simply as *Step*.

4. post-exercise stretch

In order to satisfy this basic skeleton, the instructor devises a number of sets of movements that are to make up each section. For Step Aerobics in particular, a major planning structure is the **step pattern**—basically, what pattern of steps is done by the legs and feet. A step pattern will take up a set number of beats to execute, and may be varied by different arm and leg movements which do not break the basic pattern. Each section is broken down in the instructor's plan into further sub-sections: in particular, the aerobic stepping section may build up gradually, and also incorporate a cooling-down period before the stretching section. In each section, the music is crucial: it is selected according to its beat speed (beats per minute or BPM) and must, in musical terms, be 2/4, 4/4, or 8/8 to fit the four-beat structure of the actions that make up the exercises. While experience allows teachers to proceed without planning in detail, relying instead on their knowledge of 'compiled' sequences of actions, each basic set of steps has been planned out in advance at some point and explicitly learned by the teacher. Inexperienced teachers, or those working for examinations or preparing for special showcase classes, however, may well work out a whole sequence on paper. Figure (1) shows a plan for part of the warm-up section of a workout, elicited from an experienced instructor. Although the plan was produced at my request after she had done the same warmup sequence many times, it represents the content of the mental plan for part of the class.

2.1 Linking the Plan to the Monologue

To give an example of the kind of language produced by Step instructors, the following stretch of monologue is that covering the activity represented by the task plan in figure (1):

1. `okay here we go`
2. `legs slightly apart`
3. `bend on those knees`
4. `tuck under`
5. `and lift the heel`
6. `now lift the shoulders`
7. `push forward with the arm`
8. `another four, three, two`
9. `now overhead`
10. `another four, three, two`
11. `forward for four`
12. `overhead`
13. `both arms forward`
14. `overhead`
15. `single side step`
16. `four, three, two`
17. `now downward row`
18. `doubles`
19. `tap`

Figure 1: Plan for Part of Warm-Up

Description		Repetitions	Music Count
small knee bend			
pelvic tilt			
alternating heel lift	no arms		12
	shoulder shrugs	8	16
	forward arm press alternating	8	16
	overhead press alternating	10	20
	reducing arms forward press	4	8
	reducing arms overhead press	4	8
	double arms forward	4	8
	double arms overhead	4	8
single sidestep	no arms	8	16
	downward row	8	16
double sidestep	downward row	4	16
	tap change direction		
	two back lunges	6	48
calf stretch		1	16
inner thigh stretch		1	32
centre weight between legs			
back stretch		4	32
march			16
single sidestep	no arms	8	16
	downward row	8	16
double sidestep	downward row	4	16
	tap change direction		
	two back lunges	4	32
calf stretch		1	16
inner thigh stretch		1	16
centre weight between legs			
back stretch		4	32
march			16

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20. down, down tap back, and back
21. down, and down tap back, and back
22. down, down tap back, back
23. down
24. tap
25. two more
26. tap
27. last one
28. tap
29. and hold it there
30. squeeze the heel down
31. push the heel down to the floor
32. really bend the front knee
33. leg that's behind, goes to the side
34. squeeze across
35. hold it there
36. four, three, two
37. turn to the centre
38. curling up, and down
39. curling up, and down
40. two more
41. really work that back
42. and down
43. last one
44. curling up, and down
45. and you're marching
46. for four, three, two
47. single side step
48. downward row, singles
49. double
50. add the tap
51. down, down tap back, and back
52. down, down tap back, and back
53. tap
54. one more
55. tap
56. and hold the other leg back
57. really squeeze the heel down
58. push the heel right through to the floor
59. leg that's behind, comes over to the side
60. squeeze across

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61. stretching those thighs
62. for four
63. for three
64. for two
65. one
66. to the centre
67. curling up, and down
68. curling up, and down
69. two more
70. curling up, and down
71. and one
72. curling up, and down
73. and you're marching
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As will become clear, an appreciation of the temporal placement of utterances is vital for the workout monologue to be 'parsed' correctly into utterance functions. In section 3, we will look closely at examples transcribed in a way that makes these relations clear. For the moment, though, the relationship between the monologue and the action plan can be better understood by dividing utterances into three categories, as follows:

Obligatory, temporally constrained utterances: the only utterances whose appearance and function (but not form) is completely determined by the task plan. Only DIRECTIVE utterances fall into this category. They must appear before every action change, since without them the class would not know what to do. In addition, they must appear in time for the class to change action on the appropriate beat. Here, utterances such as *and hold the other leg back* and *and you're marching* perform this function, with other examples at 2-7, 9, 11-15, 17, 18, 25, 27, 29, and many more.

Optional, temporally constrained utterances are of two kinds. They may act as MARKERS of the beat before a change, or they may NARRATE what the class is currently meant to be doing. Neither function is obligatory, since they only support the content of directives. Their placement but not their appearance is determined by the plan. Here, *curling* is an example of a marker (appearing, for example, at 38, 39, and 44), while *down, down, tap back, and back* and similar at lines 19-24 and 51-53 narrates the actions it describes on each action beat.

Optional, temporally unconstrained utterances are those that perform social and teaching functions in the workout: they either correct what the class is currently doing (*stretching those thighs* at 61, other examples at 31-33), teach a new activity to be done later, or provide praise, encouragement, or metalinguistic information such as that the class is beginning or ending. None are tied to beat placement, although they must still be action-relevant; all that is required is that they avoid the positions that would lead them to be interpreted as utterances within the temporally-constrained categories and result in confusion.

There are few genres of spoken language which display such a close match between task and discourse plans. In most studies of task-oriented data – for example, the range of collaborative tasks discussed by Goldberg (1975) and Grosz (1977), the collaborative furniture assembly dialogues

discussed by Agre and Batali (1991), or the 'map task' dialogues[3] described in Anderson *et al.* (1992) – the presence of an interlocutor with rights to discuss, challenge, and disagree lead to a much looser relationship between task and discourse plan, in two ways. Firstly, the task plan itself might be modified on the basis of discussion with an interlocutor with equal rights. Second, conversation management goals must be formulated 'on the fly' in response to the unpredictable demands of the interaction, and the plan of the discourse must accordingly be flexible enough to accommodate these and allow them to be achieved.

Clearly, discourse understanding in this genre – specifically, the interpretation of speech acts – is linked to the temporal positioning of utterances in terms of elapsed time, represented by beats of music and position in relation to the activity. This is somewhat different to interpretation that is based on the increasing constraints that arise from sequential arrangements of utterance types (for example, an response should follow a question, a greeting should follow a greeting). As I shall show, these sequential preferences for discourse organisation *do* appear in the Step monologues, but these sequences, and therefore expectations about them, are overwhelmingly determined by the temporal (beat) placement of utterances of different types. It is likely that the structural influence of temporal constraints is shared with other similar genres, such as military square-bashing, ceilidhs, barn dances, and Western line dance – all in themselves interesting genres for future study.

2.2 Data and Method of Analysis

The data for the study consists of three one-hour Step Aerobics classes. Class 1 was collected in a University sports centre, at a class in which the author was a participant (and was a regular participant in the series). Class 2 was taken from a commercial instructional video recording distributed by Reebok (Reebok 1992). The Reebok class was included to act as a check on the typicality of the University class, since it represents an institutionally-approved version of the Step workout (and, indeed, the instructor on the video is the inventor of the exercise). Class 3 was another University class, taped and transcribed, for the purposes of checking conclusions.

A total of 27 minutes and 57 seconds of data taken from class 1 (henceforth 'University') and class 2 (henceforth 'Reebok') was selected for close, beat-by-beat transcription. This data was coded utterance-by-utterance using the Workbench for Analysis and Generation (WAG), a computer coding tool that facilitates the analysis of data within the framework of Systemic Functional Grammar[4]. The current study was based on a systemic network built for the purpose using the coder. The software allows for units of language (in this case, utterances) to be coded according to the features of the network, and performs statistics on the codings when completed. All syntactic and utterance-type coding described here was done using the coder. Counts given are therefore those produced using WAG, unless specified otherwise. This data was also re-transcribed by hand onto a grid representing the 4/4 rhythm of the music, locating each syllable as closely as possible to the musical beat on which it occurred (to an accuracy of half-beats). This method of analysis was used to motivate the arguments given in section 3 relating speech act interpretation to beat placement.

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[3] The Map Task is a simple task designed to elicit discussions between pairs of speakers in an experimental setting. Each participant has a map, but one, the leader, has a route indicated on the map while his or her partner does not. Neither can see the other's map. It is up to the leader to describe the route to this follower sufficiently for it to be drawn accurately. Features on the two maps may not match, a factor designed to elicit discussion and clarification. The 'success' of the dialogue can be assessed quantitatively by comparing the given route with that drawn by the follower on the basis of the leader's directions.

[4] WAG is available by ftp from its originator, Mick O'Donnell, at the Department of Artificial Intelligence, University of Edinburgh. The software, manuals, and papers about the system can be downloaded from the World Wide Web.

Move Type	University		Reebok		Corpus	
	Count	Percentage	Count	Percentage	Count	Percentage
Directives	204	35.4%	173	57.7%	377	43%
Narrative	273	47.3%	57	19%	330	37.6%
Teaching Points	62	10.7%	29	9.7%	91	10.4%
Comments	21	3.6%	24	8%	45	5.1%
Markers	8	1.4%	16	5.3%	24	2.8%
Unintelligible	9	1.6%	1	0.3%	9	1.1%
Totals	577	100%	300	100%	877	100%

Figure 2: Utterances by Category

3 Five Functional Categories of Utterance

The utterances in the workout monologue can be divided into five functional types, as follows:

Directives warn participants about what they will need to do at the next change. They may be straightforward cues such as *now upward row*, *overhead*, or *again*, or DIRECTIVE COUNT-DOWNS asking for a repeat of a previous action, such as *four more*.

Markers are used to warn participants that they must act on the next beat. They may act as follow-up to a directive, and/or as a preface to a narration. Examples are *Ready?* and *Here we go*.

Narrative describes to participants what they should be doing right now, often functioning as a check or follow-up to a previous directive. These may be utterances such as *up up down down*, describing *at the time* the ongoing action, or NARRATIVE COUNTDOWNS which count number of actions or duration down to a change (*for four, three, two...*).

Teaching Points describe the finer points of an activity. They may either give further detail on an action currently under way, CONSTRAINING the activity as in *try not to push on that leg*, resulting in participants checking that their behaviour conforms, or they may INSTRUCT participants in a new sequence of actions before they do it themselves, as in *now we're gonna do an A step*.

Comments are utterances that are usually used to check and manipulate interpersonal relations between participants and instructor, such as *have I warmed you up yet?* and *this is very good*.

Overall counts of these utterance types by category are given in figure (2); a breakdown of moves into subtypes appears in figure (3). In the sections to follow, we will look at each utterance type separately.

3.1 Obligatory, Temporally Constrained Utterances: Directives

Directives form the 'backbone' of the workout dialogue: they perform the important task of telling participants what to do. Examples appear in (1):

Move Type	University			Reebok		
	Count	% of Type	% of Class	Count	% of Type	% of Class
Count Directives	50	25%	12.95%	35	20.3%	11.66%
Other Directives	153	75%	26.5%	138	79.7%	46%
Count Narrative	58	21.2%	10.05%	51	89.5%	17%
Other Narrative	215	78.8%	37.26%	6	10.5%	2%
TP: Instructing	34	54.8%	5.89%	13	44.8%	4.33%
TP: Constraining	28	45.2%	4.85%	16	55.2	5.33%

Figure 3: Directives, Narrative, and Teaching Points by Sub-Category

(1)   a   tap and change

        b   stepping up

        c   and front

        d   side for two

        e   now upward row

        f   to the centre

        g   single side step

An important sub-category of directive is the COUNT DIRECTIVE, which cues participants how many times a movement must be repeated, or for how long a duration in terms of beat counts. As will be seen from figure (3), 85 of the directives in the corpus are count directives: examples appear in (2):

(2)   a   one more time

        b   last one

        c   another four

        d   four more

For directives, clauses are the most frequent (*tap and change, squeeze, curl*), with adverbials (*and front*) and noun phrases (*single side step*) roughly an equal second.

Placement of directives is central to their intepretation. This is summarised in the following rule:

Rule for directive placement : directive onset will occur as late as possible during the last four beats of the previous task segment, or during the final repetition of the previous task set, whichever duration is greater. Maximum lateness of placement is dependent on the presence or absence of an optional final-beat marker.

For example, if the current activity consists of four repetitions of a four-beat movement (i.e., 16 beats), a directive for what is to be done in the next task segment *must* be issued on the last four-beat repetition – that is, between beats 13 to 16. Likewise, if the activity is an eight-beat movement with four repetitions (32 beats), a new directive must appear on the last *eight* beat repetition: between beats 25 and 32. Directives, then, always appear on the last action repetition. Two-beat actions, however, are an exception: here, the final repetition is rather short to issue a

coherent directive: in these cases, instructors will take the final two repetitions (four beats) to issue the directive.

Two examples will serve to make the facts about directive placement somewhat clearer. Figure (4) shows utterance placement in a four-beat activity (a basic step). Note, first of all, how the count directive, *another four*, is placed on the final repetition of the previous activity segment. This allows participants time to act. The next directive, *now upward row*, duly arrives just before the second beat of the final four-beat bar. It could, in fact, have been later: as long as it is complete by the half-beat after beat four, it will suffice as a cue. Other utterance types in this and the following example will be explained in subsequent sections.

Figure 4: Utterance Placement in a Four-Beat Activity

A two-beat example appears in figure (5). Two-beat repetitions, as I noted above, are the exception to the rule on directive placement. As it is rarely possible to generate a useful directive utterance in the space of two beats, instructors often use the space of the last *two* repetitions of the previous segment, instead of the final repetition, to issue the directive. Accordingly, the onset of the directive *push forward with the arm* is placed halfway through repetition three of the previous segment. It is followed by three narrative countdowns (*four, three, two*) before the onset of the next directive, *now overhead*, which again is positioned halfway through repetition three of the activity.

3.2 Optional, Temporally-Constrained Utterances

Two kinds of utterances that obey temporal constraints appear optionally: these are MARKERS and NARRATIVE utterances.

Figure 5: Utterance Placement in a Two-Beat Activity

Markers

Markers are utterances that are issued on the final beat or half-beat before a new task segment begins: the intention behind them is to signal clearly when exactly the change will take place. In this respect, they support directives and countdowns, and although optional, do provide useful information. Markers usually appear after directives and before narrative, but may optionally appear on their own while a task segment is underway, reminding participants of a change in move without describing the content of that change. Examples appeared in both the four-beat and two-beat transcriptions described above. In the four-beat example in figure 4, the marker *squeeze* appeared on the last beat of the final four-beat repetition before a change; in the two-beat case in figure 5, the marker *going* appears before the movement described by *up*.

A wide range of syntactic forms are used as markers.they may be as brief as *and*, or as long as *you're gonna go. . .*; the University instructor favours *ing* forms, such as *going, curling, pushing*. Whatever their syntax, markers must, however, fit into at most a beat and a half, since their function is to indicate that a new action must take place on the next beat. In some cases, two markers appear in a row, as in *here you go you're gonna go*, followed by a narrative *up* which appears on the action-relevant beat. Markers may additionally appear on their own: if the class

already know what the action is – for example, if they are already on the third repetition – the marker may simply be *and* with no further content.

Narrative

Narrative utterances are those which supply information to back up the framework provided by directives: they narrate the workout activities as they happen, providing a more fine-grained level of description than that given in directives. Apart from this informational difference, they also differ crucially in timing: while directives are issued *prior* to an activity, as we have seen, narrative is placed to describe actions *as they occur*. These differences in timing and information status reflect a difference in function between directives and narrative, and explains why, in context, we often see utterances of the two types concatenated, as later examples will demonstrate.

Examples of narrative appear in (3):

(3)　a　up tap and down tap

　　　b　backwards

　　　c　up lift

　　　d　side, up, side, and down

　　　e　squeeze

　　　f　curl

As these examples show, typical narrative utterances are terse, consisting of simple concatenations of items, each of which is intended to fall upon the beat to which its content refers. In both the four-beat and the two-beat cases described above, typical narrative appears: in the first case, *up* on the first beat of a four-beat movement; in the second, *up* at the beginning of each of two two-beat movements.

A clearer picture of the difference in the informative content of directive and narrative utterances can be gained by examining concatenations of the two kinds of utterance in context. For example, the directive *now to the side for four* in (4a) is subsequently narrated in the University workout as the sequence of four further utterances in (4b):

(4)　a　now to the side for four

　　　b　going up

　　　　　up

　　　　　right leg up

　　　　　right leg up

Likewise, *add the tap* in (5a) is followed by the sequence of narrative utterances in (5b), which expand on its detail:

(5)   a   add the tap

        b   down

            down

            tap

            back

            and back

Finally, the directive *now alternate* in (6a) is given in subsequent narrative as four lower-level task segments:

(6)   a   now alternate

        b   going on

            off

            up

            and back

Directives and narrative therefore serve complementary functions, in that they relate to differences in the granularity of the description – different levels of the hierarchy of conceptualising what is being done. Clearly, narrative is too detailed to issue *as* directive, and it would deprive participants of a high-level conceptualisation of the activity that might, for experienced participants, activate the memory of the whole sequence of narrated acts as a simple entailment of the content of the directive. On the other hand, however, failure to issue any narrative, especially in the case of long task segments, would result in lack of support for less experienced participants who do not have this'compiled' knowledge, and those for whom concentration has momentarily lapsed.

Figure 6: Count directive and count narrative

Informationally, then, the distinction between directive and narrative is crucial: while directives constitute the top-level description of the activity, and will be new information to the majority of participants (except those who know the whole sequence of the workout off by heart, perhaps because the instructor is predictable from class to class), narrative is interpreted variously as new information (by novices, by the confused or inattentive, who must struggle to catch up on hearing it) or as inferrable or 'given' (by the experienced, those who have compiled the high-level action description available from the directive, who use narrative to check with satisfaction that they are already doing what the narrative describes). It is more than likely that participants move between these levels of narrative interpretation during the workout, since even the most experienced participants can lapse in concentration from time to time, and will take the opportunity to 'rejoin' that narrative offers them.

In addition to ordinary content narrative, a second kind of narrative appears in the monologue in the form of COUNT NARRATIVES. Figure (4) contains count narrative sequence *for three, for two, last one*: here, count narratives serve to enumerate repetitions or beat duration on the relevant beats. The virtue of distinguishing them from count directives is evident on examining cases where the two kinds of counts are concatenated in the monologue, revealing their differing functions. This is shown in figure (6), in which four repetitions of a four-beat action are cued by the count directive *four more*, followed by count narratives on the first beat of each repetition.

3.3 Optional, Temporally Unconstrained Utterances

The final two kinds of utterance fall into this category: TEACHING POINTS and the social or metalinguistic COMMENTS of the instructor. In both cases, temporal constraint obviously appears in the form of topical relevance to what is going on, but relationship to beats is not crucial.

Teaching Points

Teaching points in the workout are of two kinds:

Instructing teaching points, which teach participants a new move that they are shortly to undertake; and

Constraining teaching points, which describe a current move in more detail, enabling participants to check that they are performing it correctly.

Example (7) is a long instructing teaching point from a University workout:

(7) and we're gonna do three of these here
     gonna go across to the front diagonally
     then we're going to come back for three
     watch while I do it
     keep up tapping and down tapping here
     and I'll show you
     watch
     here I go
     I'm going to go
     four
     three
     two
     then I'm going over diagonally
     one two three
     and tap
     backwards
     backwards
     backwards
     then back over
     one
     two
     four
     ok

In this example, the instructor's *four, ok* are indications that the class should now join in the exercise they have watched. Many instructional teaching points 'blend in' to narrative in this way: some of the class are likely to have begun to copy the instructor straight away, rather than watching passively. Not all instructional teaching points are this long, however: shorter examples appear in (8):

(8) a we're gonna do a basic up tap down tap to the side

     b Now you're gonna watch for these arms, watch

Examples from the Reebok workout are as follows:

(9) a when we get to the end of this we're gonna take this and reach it up and
        down the step

     b now you're just gonna take your legs and hold them still

These teaching points differ from directives in that they are not to be acted upon immediately: instead, they foreshadow activities, and therefore other utterances, to come. Because they are delivered at a time when participants are already established in a different activity, they are not time-critical, and as a result tend to approximate more closely to the rhythms of relaxed normal speech than do directive and narrative utterances. An example of the placement of an instructing teaching point, and its 'foreshadowing' of directives and narrative to come, appears in figure (7). In this example, the instructing teaching point *then we're gonna add the hop, yes?* comes six four-beat bars[5] before the directive it foreshadows, *now add the hop*. Note, too, that the teaching point is not placed on a final repetition of an action: it takes place when a sequence of actions (indicated

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[5] The activity is a 16-beat one, consisting of three repetitions of a four-beat activity plus a single different four-beat activity.

by sequences of *up, squeeze, over*) is already underway. Most importantly, its placement violates a beat segment boundary, differentiating it further from a potential directive: as we have seen, directives typically inhabit a region as near as possible to the end of a four-beat or single-task-segment structure. This teaching point, on the other hand, straddles two bars. The importance of placement is clear, here, since the *we're gonna* construction is also a common one for directives.

Figure 7: Teaching point foreshadowing directives and narrative

The second category of teaching point is the CONSTRAINING teaching point, which serves as a check on an activity already under way. The function of constraints is to ensure that participants are doing activities correctly and safely, and in a way that will enable them to get the maximum benefit from the exercise. (10) gives examples from the Reebok workout:

(10)   a   each time your hands come down and rest on your thigh
       b   shoulders back
           abdominals tight
       c   push those crosses straight out in front

The examples in (11) are taken from the University workout:

(11)   a   without pulling on the back knee

          b   too fast, keep with me

          c   you're stretching those hamstrings

          d   nice straight backs

          e   make sure those elbows go wide

Like instructional teaching points, constraints are not placed in the segment-ending positions that might cause them to be confused with directives: *stretching those hamstrings* and *pushing those crosses out in front* are not exercises in themselves, but refinements of current exercises. Placement, therefore, is 'parenthetical' to the main structure created by directives, narrative, and markers. An example of a constraining teaching point in context appears in figure (8), in which *really work that back* is inserted between two instances of *and down* which mark, and then narrate, the current activity. Note, again, the cross-segment-boundary positioning of *really work that back*.

Figure 8: Constraining teaching point

In the 877 utterances in the closely-transcribed corpus, 91 examples of teaching points appeared; just over 10% of the corpus utterances.

Comments

Comments are utterances that serve to check and manipulate social relations in the workout: the only class of utterance whose content is not determined by the structure of the activity itself. They may serve a metalinguistic function, checking that everyone can hear and is in a good position to begin the workout; more commonly, however, they serve to joke, check progress, and praise participants at various point throughout the class. In section 4, we will examine the social significance of these utterances in more detail: for the moment, it will suffice to note their form, frequency and placement. As we saw in figure (2), comments make up 3.6% of the University data, and 8% of the Reebok data, leading to a total of just over 5% of utterances in the corpus as a whole. Examples from the Reebok workout are as follows :

(12)   a   ready?

          b   good

          c   that's it

          d   right good

          e   that's good

In fact, the examples in (12) above exhaust the variety of comments in the 300 utterances analysed closely, perhaps because more contentful observations on class behaviour are not possible in the context of a video recording for commercial distribution. Perhaps because she has her class in front of her, the University instructor accordingly uses a wider variety of comments. Examples appear in (13):

(13)   a   nice and easy

          b   how're we feeling?

          c   this is very good

          d   keep it up

          e   you can almost hear the steam coming out of your brains

          f   why d'you all look so worried?

24 of the 44 comments in the corpus are clausal; the remainder are evaluative adjectives. Syntactically, then, comments are not close to narrative (which is principally delivered by adverbials), so that even terse comments are not readily confused with narrative. Comments are not time-critical in their placement, so that, as long as they avoid the positions defined as prime sites for directives by the directive placement rule formulated above, even imperatives such as *keep it up* should not be confused with directives. It is likely that a combination of content (for example, evaluative content) and syntax (questioning, which is not present elsewhere, and clausal constructions) serves to differentiate comments adequately from other utterance types.

3.4   Five Types of Utterance in Context

Figure 9 is an example that features all five types of utterance and illustrates the points that I have been making about their placement. The workout task is a sixteen-beat one: we join the extract at the beginning of the third of four sixteen-beat repetitions. First, note the placement

of the time-critical utterances: directives, narrative, and markers. The major task directives *now add the hop* and *once more round* (non-count and one count respectively) are placed as near as possible to the end of the sixteen-beat segment, as the rule predicts. The reason they are not right *at* the end is that a marker is present in each case (*you're gonna go* and *going*), and these occupy the last possible position in the segment. Narratives are placed on the beats to which they refer: this accounts for the utterances *up squeeze, up squeeze, squeeze, over, up hop, hop over, one two three and tap, up hop, up hop, up hop, over,* and *one two three and tap.* Two further utterances, *then we're gonna add the hop, yes?* and *don't forget to go backwards* are teaching points, instructing and constraining respectively. As we saw in section 3.3, the teaching points avoid the critical directive position late in their respective task segments (in this 16-beat activity, beats 13-16 inclusive). Finally, the encouraging comment, *keep it up*, similarly avoids the critical placement, and is in fact delivered, although the transcript does not show it, with a higher pitch than any of the narrative utterances that are its only potential sources of confusion.

Figure 9: Five Utterance Types in Context

4 Conclusions and Future Directions

So what, then, are participants doing when they interpret the workout monologue, and what is it that distinguishes novices from experts? In the examples of the five different utterance types, I hope to have shown that a reliance on grammatical form – the expectation, for example, that directives will take imperative form – will not be a reliable indicator of function. Much more central to interpretation is utterance placement, backed up by content: a participant knows, for example, that *keep smiling* is not likely to describe the next workout action, but will be reassured by its placement, avoiding the critical placement for directives, that it is not a new part of the workout, but a comment. Less content evidence, however, is available for the interpretation of an utterance such as *push the heel down to the floor*. In fact, this constraining teaching point elaborates on the previous directive *squeeze the heel down*, and is not placed in a key directive position. Experienced participants can therefore tell reinforcement, such as teaching points and narrative, from directives, and thus 'parse' the workout correctly.

One utterance category which seems to differentiate clearly between novice and expert interpretation is that of narrative. Because narrative is issued at the time of the relevant action, it arrives too late to be usefully employed as a directive, as described in section 3 above. However, it does allow latecomers to 'catch on' to what they are supposed to do, and perform the relevant action one beat late. Novices, therefore, often distinguish themselves by late actions based on narrative, which they are treating as New, rather than as Given, information. In fact, narrative supplies no more information than is, by then, available visually by copying other participants. The difference in information status depending on expertise, however, is worth noting, since it implies that the ascription of information status is mediated not only by signalling devices on the part of the producer, such as intonation, but on the perceptions of the hearer. This is what was meant by my earlier statement that 'different discourses' may result from the same communicative event, depending on hearer experience.

Apart from describing some of the basic characteristics of an interesting genre, the paper shows the need for a clear distinction, in the taxonomising of discourse types, between different types of 'planning' in discourse. Task-oriented discourse such as instructions opens up a further area of variation that is often unrecognised, and that is the possibility that, while the language itself is relatively unplanned and spontaneous, the underlying task that governs significant elements of the discourse may be highly planned. Plannedness and spontaneity, then, is not merely dependent on whether a text has been written out beforehand: a distinction has to be made between language arising from planned *activity*, and language that is unplanned at this level. To take an early example, Gregory and Carroll's (1978) taxonomy of situation variation runs from spontaneous speaking (conversing, monologuing) to non-spontaneous (reciting, speaking what is written). While the speech described in this paper is spontaneous monologue, an important element of planning governing both its form and content is missed. More recent attempts to taxonomise language and situation types for the purposes of corpus-collection have not amended the omission.

There is much more to be said about the language of aerobics workouts, both in its central role in constructing Step as a social phenomenon, and in its microlinguistic form. In this paper, I have paid little attention to the highly elliptical nature of the language (although see Delin (subm., a) for a fuller account, indicating the relationship between the hierarchical organisation of the workout activity and the resolution of ellipsis and anaphora), which might make one wonder at a clausal analysis that postulates for every utterance that so many grammatical constituents are missing. While directive forms are alluded to, I have not attempted, here, to go into any detail into the choice of grammatical form to carry out the different discourse functions. There is much to say, too, about the 'facework' that the instructor must carry out in order to provide redress for the peremptory nature of the language of utterances that are time-constrained (see Delin (subm.,

b) for a review. Comparisons with other instructional genres are certainly in order for a fuller understanding of how far the expectations of participants can be derived from other activities in which they might have taken part.

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