Teacher Reformulations of Students' Answers during an Episode of Pedagogical Talk

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Abstract

Interaction which occurs between teachers and students engaged in pedagogical talk in classrooms is typically organized into three-part sequences. These sequences have been given a variety of labels, such as Initiation-Response-Feedback (IRF) sequences. An important question related to this kind of three-part sequence is whether it is facilitative of or counter-productive for learning. While not providing a definitive answer to this question, this paper investigates the work that is accomplished by the third part of the sequence, the F-component, in a series of such sequences during an episode of pedagogical talk that occurs in an English as a foreign language classroom. This then allows for some consideration of how these F-components, and these IRF sequences, may provide or deny opportunities for learning.

Introduction

One type of talk that can be expected to occur between teachers and students is pedagogical talk, that is, talk which is related, ostensibly at least, to teaching, displaying knowledge of what one has learned or understands, and/or knowledge construction. Something that has been observed in a variety of classroom settings, and within various methodological frameworks, is that such pedagogical talk typically takes the form of a three-part sequence of turns. Such sequences, which have been labeled Initiation-Response-Feedback or Initiation-Response-Follow up (IRF) (Sinclair & Coulthard, 1975), Initiation-Response-Evaluation (IRE) (Mehan, 1979), Question-Answer-Comment (QAC) (McHoul, 1978), and triadic dialogue (Lemke, 1990), have been characterized as involving the teacher producing the first turn, typically a question, a student responding in the second turn, and the teacher assessing, evaluating, or otherwise commenting on the student response in the third turn.

As the presence of such sequences in the interaction between teachers and students may be one factor which makes the talk recognizable as pedagogical talk (Nassaji & Wells, 2000), an important question is whether these sequences are facilitative of or counter-productive for learning. The answer appears to be that they can be either facilitative or counter-productive, and possibly simultaneously facilitative in some ways and counter-productive in others, depending on how the different parts are produced within the local sequential context. On the one hand, this type of sequence may limit students' opportunities to participate in the pedagogical talk, may encourage students to produce responses which are as minimal as possible, and may discourage students from active engagement with the subject matter. On the other hand, Mercer (1995) argues that if they ask the right questions, even display questions (i.e., questions to which teachers already know the answer), teachers can use this kind of sequence to guide students as they co-construct knowledge. With regard to the third part of the sequence, Nassaji and Wells (2000) argue that, while an evaluation as correct or incorrect may be limiting because students are unlikely to expand their answers, a third part that encourages the student to
expand, such as asking questions to justify his or her answer, may further the co-construction of knowledge. (However, the possibility that a student will take such a question as an evaluation as incorrect should also be considered.) When it comes to learning possibilities associated with the three-part sequence in language classrooms, Ohta (2001) argues that it is one of several interactional routines whose "predictability allows the transmission of cultural and linguistic knowledge that results as learners gradually develop facility with these routines" (p. 6). Looking specifically at how teachers use listener responses in the third part, Ohta (2001) points out that this practice can both help students, by exposing them to target-language listener responses in a meaningful context, and limit them, as the third part is not one that students normally use.

What is evident is that blanket evaluations of the three-part sequence as facilitative of or counter-productive for learning are over-generalizations. In order to approach an understanding of the ways in which this kind of sequence can further or hinder learning, detailed study of the actual ways in which these sequences are constructed in context is necessary. While not definitively answering the question raised in the previous paragraph, something which anyway may not be possible, this paper seeks a better understanding of some of the possibilities for three-part sequences through the close investigation of the work that is accomplished with the third part during an actual episode of pedagogical talk between a teacher and several students in a language classroom. This will allow for some consideration of how the three-part sequences found during this episode of pedagogical talk may or may not be facilitative of learning.

Data and Methodology

The data come from a slightly-less-than-five-minute episode of pedagogical talk in an English-language class at a Japanese university. The teacher is a white male from the U.S. with a graduate degree in English language teaching. The twelve students are all first year university students. There is a mixture of male and female students in the class, but as it turns out, the four students who produce talk as part of the pedagogical episode are all male. None of the students in the class is majoring in English or any other language, which are not offered as majors at this university. During much of this class, the students are involved in small-group discussions, with the teacher circulating, monitoring, and occasionally joining the interaction in different groups. During this episode of pedagogical talk, though, the teacher and, ostensibly, all twelve students in the class are participants in a single interaction. The episode forms a transition between the presentation of a listening/reading passage from the textbook and student-managed small-group discussions related to the passage.

The episode, as well as the entire class period, was video- and audio-recorded, with the oral consent of all participants, with two video cameras and one audio-recording device. The recordings were then transcribed according to the conventions developed in conversation analysis (see Jefferson, 2004). Transcription conventions can be found in the appendix. All names used in the transcripts or the analysis are pseudonyms. The analysis below has been conducted within the analytic framework of conversation analysis (see, e.g., Hutchby & Wooffitt, 1998; Pomerantz & Fehr, 1997; Psathas, 1995).

From hereon, the three-part sequence will be referred to as an IRF sequence, as this particular term appears to be the most commonly used. However, in order to avoid a priori assumptions about what each part, and in particular the third part, of the IRF sequence accomplishes, the different parts will be referred to as simply the I-component (first part), R-component (second part), and F-component (third part), without any a priori claims that the I-component accomplishes initiation, that the R-component accomplishes response, or that the F-component accomplishes feedback or follow-up.

Work Accomplished through the F-Component

At a fairly gross level of description, the pedagogical episode can be characterized as a series of linked IRF sequences. As a series of such sequences, the episode forms what Hellermann (2005) has called an activity segment. Extract (1) shows one IRF sequence from the episode.
One reason for saying that this is a three-part IRF sequence only at a gross level of description is that there are two turns between the I-component and the R-component, as the student, Ichiro, indicates his willingness to respond by raising his hand at the end of the gap in line 5, and the teacher recognizes him in line 6. The R-component, an answer to the question produced as the teacher’s I-component, then follows in line 7. This is not unusual for the sequences occurring during this particular segment of interaction, so they are perhaps more accurately described as containing five parts, with a two-turn insertion sequence appearing prior to the R-component. However, this paper will not focus on the insertion sequence or how the connection between the I-component and R-component is constructed. As mentioned above, this paper will focus on the work accomplished by the F-component.

One thing to note about the F-component in extract (1) is that it is composed of the words yeah and so followed by a repetition of what Ichiro has said in line 7, or more accurately, a reformulation of Ichiro’s turn, as changed any Indian languages. The teacher’s talk in extracts (2) and (3) is similar, except that in extract (3), the teacher says okay rather than yeah and inserts so that’s another problem.

As shown in these three extracts, the F-component of the IRF-sequences that occur in the pedagogical episode is constructed minimally of three distinct parts: first, acceptance of the student’s contribution, accomplished through the use of yeah, okay, or in two cases okay, yes; second, the use of so to mark what comes next as a reformulation of the student’s contribution; and, third, the reformulation itself.

In addition, the three parts of the F-component, but most importantly the reformulation, are designed by the teacher to be audible to the entire class, and the students, and anyone listening to the recording, can hear them to be so designed. The answer produced by the student as the R-component, addressed to the teacher as a second to the I-component, notwithstanding the two turns inserted between I and R, and not necessarily designed to be heard by the entire class, is presented to the class through the reformulation part of the F-component. This reformulation and presentation can be seen, though unfortunately, with a written transcript, not heard, in extract (1), shown above, as well as in extracts (4) and (5), from which extracts (2) and (3) were taken.

Extract (4)

1 TEA: (kay) □ What else.
2 (1.6)
3 TEA: What else is going on.
4 YAS: ((raises hand))
5 TEA: Yeah
6 (1.4)
7 YAS: She can’t speak (0.5) any Indian languages.
8 ((cough))
9 TEA: Yeah so she doesn’t think (0.3) that she can become accustomed (0.3) to her country. (0.6) an: she also doesn’t think that he could become (0.3) become accustomed to her country. right?
10
11

Extract (5)

1 TEA: What else.
2 (1.0)
3 TEA: What else is going on.
4 (0.4)
5 TEA: Why else is she thinking no.
6 (17.5) ((JIR raises hand at end of gap))
7 TEA: (alright) □ okay
8 JIR: Uh m (.) maybe: (0.3) they could live together in the you eight (.) United Station, (0.2) but
9 (0.6) yeah >United Stat(h)es< (0.3)
10 TEA: [United States yeah
11 JIR: United States but she would miss: (0.5) her family
12 (0.2) and friends and (.) everything.
13 TEA: Okay so that’s another problem. so maybe they could

Extract (2)

1 TEA: Yeah so she doesn’t think (0.3) that she can become accustomed (0.3) to her country, (0.6) an: she also doesn’t think that he could become (0.3) become accustomed to her country. right?
2
3
4

Extract (3)

1 TEA: Okay so that’s another problem. so maybe they could live in the United States, (0.3) then maybe she’d miss her family and friends (en).
In extract (4), Yasu’s R-component in lines 7–8 is reformulated by the teacher in lines 9–12. In extract (5), Jiro’s R-component in lines 8–10 and 12–13 is reformulated by the teacher in lines 14–16. In both cases, the teacher's F-component containing these reformulations is hearably designed as audible to the entire class. However, extract (5) is especially interesting as it shows that not everything the teacher says is designed to be audible to the entire class. Specifically, in line 11, the teacher addresses a turn to Jiro, produced interruptively before Jiro has completed his R-component. This turn functions as a correction of something Jiro has said (or rather, read, as he appears to be reading from his textbook at this point) and is not hearably designed to be audible to the entire class (though, of course, the entire class may be able to hear it).

Extract (6) shows a deviant case, in which the teacher repeats word-for-word in line 9 what Ryu has said in line 8, without saying so. The teacher designs this turn to show that he did not at first understand Ryu’s turn in line 8 and that the reason he did not understand it was because of Ryu’s choice of preposition.

To summarize, during this pedagogical episode, in each of the IRF sequences, the teacher’s F-component accomplishes acceptance of the student’s R-component, reformulation of this component, and the presentation of this reformulation to the class. Importantly, this reformulation can also be understood as a model of correct language. It presents to the class what the teacher accepts as an adequate answer to his question after having been, in a sense, edited by the teacher to make it conform to the norms of English. The students may or may not be paying attention to what the teacher is saying, but the F-component is nevertheless there in the environment as a model of how to answer the teacher’s question in a manner that is correct in both content and linguistic form.

The F-component also accomplishes something else, which is that it allows the teacher to maintain some degree of control over the interaction. By designing the F-component so that it is audible to the entire class, the teacher is able, although with the (somewhat passive) collaboration of the student, to close the interaction between himself and the individual student who produced the R-component. How this works can be seen in extracts (7) and (8), which are continuations of extracts (4) and (5).

Extract (7)

<table>
<thead>
<tr>
<th>Line</th>
<th>Transcript</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TEA: Yeah so she doesn’t think (0.3) that she can become accustomed (0.3) to his country, (0.6) an: she also doesn’t think that he could become (0.3) become accustomed to her country. right?</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>TEA: Good</td>
</tr>
<tr>
<td>7</td>
<td>(1.4)</td>
</tr>
<tr>
<td>8</td>
<td>TEA: What else</td>
</tr>
<tr>
<td>9</td>
<td>(0.3)</td>
</tr>
<tr>
<td>10</td>
<td>TEA: What’s (0.2) What’s kind of one more problem that she mentions.</td>
</tr>
</tbody>
</table>

It is only after the teacher has successfully elicited an explanation from Ryu in lines 13 and 14 that he produces an F-component, in line 15, containing okai yeah, so, and a reformulation of Ryu’s original R-component. Prefaced with a change-of-state token, oh, and produced with contrastive stress on the preposition for, the teacher designs this turn to show that he did not at first understand Ryu’s turn in line 8 and that the reason he did not understand it was because of Ryu’s choice of preposition.

2 As shown in the work of Heritage (e.g., 1984, 2005), “oh” in English indexes a claimed change of cognitive state, such as a change in knowledge or focus of attention. However, such a change-of-state token should not be treated as a reliable indicator of unobservable cognitive events. For example, in extract (6), the teacher could be pretending not to understand what Ryu has said in line 8. Also, the timing of such tokens is based on the contingencies of the interaction rather than on mental events. See Tanaka (1999) for discussion of “ah” as a change-of-state token in Japanese.
In extract (7), the teacher's "right* at the end of line 4 is designed to be audible to the entire class, just like the reformulation which immediately precedes it. For his part, Yasu does not take it as addressed to him, as he does not respond, but rather, through his gaze, disengages. The teacher then produces an assessment in line 6 before going on to the next I-component in lines 8 and 10–11. Similarly, in extract (8), Jiro does not respond to the teacher's F-component and following the gap in line 4 the teacher moves to the next I-component. After the teacher's question in line 5, Jiro shows his understanding that the interaction between himself and the teacher has been closed by shifting his attention to the textbook. The fact that the F-component does not elicit a student response is in contrast to what happens in extract (6), when the teacher's word-for-word repetition in line 9 elicits a response, albeit a non-verbal response, from Ryu in line 10.

In both of these extracts, as in other cases during the pedagogical episode, the F-component closes the current sequence of interaction and leaves the teacher with the next turn, which gives the teacher the power to decide, for example, whether to address a new I-component to the class (as happens in extracts (7) and (8)), or to address a new I-component to the student that he has just been interacting with, or to move on to the next activity. The F-component thus serves as a tool through which the teacher can control the interaction. For their part, the students go along with this and do not contest the teacher's power to end a sequence of interaction or to decide what to do next.3

Discussion—Opportunities for Learning?

The F-components that occur in this pedagogical episode, except for what occurs in extract (6), do not provide feedback on, evaluate, or otherwise comment on the linguistic form of students' R-components. On the other hand, these same F-components in general provide positive feedback or evaluations with regard to the students' R-components being adequate answers to the teacher's questions. What the F-components primarily accomplish, though, is not feedback or evaluation, but rather the presentation to the class of a reformulated, correct(ed) version of the R-component that precedes it. This may or may not lead to language learning, but at the very least, it provides students with models of the language from which they may be able to learn. However, these F-components do not provide students with opportunities to take control of the interaction. Rather, they provide one resource through which the teacher can maintain control of the interaction as the one participant with the right to decide whether an answer is adequate and who takes charge of presenting this answer to the class. The teacher can then use his control of the interaction to decide how to continue following the F-component. In this sense, the degree to which students can be active participants in the pedagogical episode is limited, which in turn may limit opportunities for learning. The F-components in this episode, and the IRF sequences of which they form a part, can thus be understood as in some ways as facilitative of learning and in other ways as counter-productive.

More importantly, though, the work accomplished by the F-components in this pedagogical episode is closely tied to the context in which they occur. As mentioned above, this slightly-less-than-five-minute episode occurs following a listening/reading passage from the textbook and serves as a transition from this passage to small-group student discussions related to the passage. The teacher's I-components serve to elicit from the students information related to the passage, information that may be important in the following discussions. The reformulations of the

3 It is worth mentioning that the teacher does not use another means of controlling the interaction that may be common in (some) classroom contexts, which involves selecting a next speaker by calling on a student as part of the I-component, as found in McHoul (1978).
students’ R-components that form part of the F-components provide the opportunity for all students to share this information. In part through the work accomplished by the F-components, the IRF sequences found in this episode serve to share with the entire class possibly useful information which has been co-constructed by the teacher and some of the students. If the interaction which occurs during activities such as small-group discussions is facilitative of language learning, as it is often argued to be, and if the information co-constructed and shared with others through the IRF sequences proves useful to students as they participate in these discussions, then the IRF sequences which occur during this particular pedagogical episode may facilitate learning during the following small-group discussions.

Concluding Remarks

While IRF sequences (or IRE sequences, or QAC sequences, or triadic dialogues) may be ubiquitous in pedagogical talk, the kind of work accomplished through such sequences, and through the different parts of such sequences, is almost certain to vary. A danger associated with labels such as IRF is that they carry with them an already determined analysis of the different parts of the sequences to which they are applied. Labeling a sequence of interaction as an IRF sequence implies that the first part accomplishes initiation, the second part accomplishes response, and the third part accomplishes feedback or follow up. In some cases, the analysis attached to the label may be inaccurate, while in all cases, it is likely to be an oversimplification. Detailed examination of the different parts of such sequences is necessary in order to uncover the different kinds of work that may be accomplished through each part. Similarly, when it comes to opportunities for learning provided by or denied through the construction of such sequences, it is necessary to look carefully at how such sequences are used within specific contexts. However, even when this is done, what might be found is not that IRF sequences are either facilitative of learning or counter-productive for learning, but rather that they are facilitative in some ways and counter-productive in others.

References

### Appendix--Transcription Conventions

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>period, falling, declarative intonation</td>
</tr>
<tr>
<td>?</td>
<td>question mark, rising, question intonation</td>
</tr>
<tr>
<td>,</td>
<td>comma, falling-rising, continuing intonation</td>
</tr>
<tr>
<td>:</td>
<td>colon, sound elongation, more colons indicate longer elongation</td>
</tr>
<tr>
<td>-</td>
<td>hyphen, cut-off with glottalization</td>
</tr>
<tr>
<td>xxx</td>
<td>underlining, greater than normal stress</td>
</tr>
<tr>
<td>=</td>
<td>equal signs, latched turns with no gap or overlap, or continuation by same speaker from non-adjacent line</td>
</tr>
<tr>
<td>[</td>
<td>left bracket, beginning of overlap</td>
</tr>
<tr>
<td>]</td>
<td>right bracket, end of overlap (rarely used)</td>
</tr>
<tr>
<td>()</td>
<td>period within parentheses, micropause, hearable pause of less than 0.2 seconds</td>
</tr>
<tr>
<td>(1.0)</td>
<td>number within parentheses, pause greater than 0.2 seconds, measured to nearest tenth second</td>
</tr>
<tr>
<td>(h)</td>
<td>laugh token within word</td>
</tr>
<tr>
<td>h</td>
<td>audible outbreath, more letters indicate longer outbreath</td>
</tr>
<tr>
<td>.h</td>
<td>audible inbreath, more letters indicate longer inbreath</td>
</tr>
<tr>
<td>(xxx)</td>
<td>incomprehensible speech/sounds, number of letters indicates best guess at number of syllables</td>
</tr>
<tr>
<td>(yes)</td>
<td>word inside parentheses, best guess at practically incomprehensible speech</td>
</tr>
<tr>
<td>(())</td>
<td>double parentheses, analyst's description of something in the transcript, or description of problem with the transcript</td>
</tr>
<tr>
<td>➡️</td>
<td>words inside degree signs, extra-quiet talk</td>
</tr>
<tr>
<td>➡️➡️</td>
<td>rising or falling arrow, marked rising or falling intonational shift immediately following the arrow</td>
</tr>
</tbody>
</table>