Mixed genres in lecture room discourse
A structural analysis

Jet van Dam van Isselt
University of Amsterdam, ACLC

1. A prototypical institutional genre: The IRE/IRF

Discussions on interaction and learning in formal educational settings have often focused on the merits (or lack thereof) of a three-part structure traditionally referred to as the IRE (or IRF) which is considered prototypical for classroom talk: a teacher question or Initiation move solicits a student Response to that question which in turn calls a third-slot teacher Evaluation or Feedback move for the structure to be complete and well-formed (e.g. Gee 2004; Hall 1997; Lemke 2000; Sinclair & Coulthard 1975; Tracy & Roberts 2009; Wells 1999). While a useful stylization of a pattern of interaction that routinely occurs between participants with asymmetrical roles in sequences that are supposed to foster learning (both in and outside the classroom), pure, uncluttered instances of this hypothesized structure are rare in institutional talk. This is intriguing and raises questions about how we are to interpret intervening and surrounding moves: the many re-runs, half-off-record asides, parenthetical sequences (Mazeland 2007) and metacomments that routinely occur in a discourse-unit-in-progress or at the interstices between turns at talk in educational multiparty settings (cf. Van Dam 2002). Clearly these do not themselves realize any of the successive moves or discrete subunits hypothesized in the IRE. Yet they demonstrably affect the course of events in classrooms or lecture halls and, as such, cannot be ignored. But when the discourse shifts out of the canonical IRE sequence, where are we? What embedding genres (e.g. monologue, dialogue, soliloquy; Davis 2007) and formal/informal registers (cf. Irvine 2001) are available for the interpretation of utterances and interactional events and how can we more systematically account for the discourse complexity these mixed genre forms generate (Kamberelis 2001)?

This paper considers the structural implications of moves inserted in the course of an evolving question-answer sequence in a lecture hall setting from the moment an initial teacher question is on the floor. The issue I will address is to what extent
we can trace how a new incoming utterance or interactional event in a given state of talk can reframe and constrain what counts as a relevant next move. In the long run this involves the ambitious challenge to try and articulate a dynamic, complex notion of discourse context (Bannink & Van Dam 2006; Erickson & Schultz 1981; Polanyi & Sch a 1983; Polanyi 1988; Van Dam Van Isselt 1993), i.e. one that is both empirically valid and formally explicit. For the episode to be analyzed in this paper it translates into the more modest aim of exploring how a class question may construct ambiguous or complex parameters for what constitutes a legitimate next move, and making some progress towards understanding how formal institutional and non-classroom-specific genres and systems (linguistic, interactional, pragmatic, sociocultural and so on) are dynamically interrelated in communicative practices (cf. Hanks 1996). The data consist of brief segments of video footage of an episode in a university science class taught at a Dutch university.

2. Background, theoretical orientation, data and methodology

The multiparty data to be analyzed in this paper originate from a corpus of videotaped lectures and classes taught by experienced professors and lecturers at the University of Amsterdam. Selected episodes from this corpus are annotated and incorporated in a web-site-under-construction intended for university teachers who are relatively new to the job. The idea is that zooming in on salient details of the way experienced teachers interact with their students in lecture hall settings (and beyond), may promote reflection on ‘good practices’ on the part of all those who wish to expand their professional repertoire.

The episode to be discussed below was selected primarily because it exhibits a wide range of participation modes on the part of the students. But it also shows how crucial notions about what ‘doing science’ involves can be communicated on the fuzzy edges of canonical institutional question-answer sequences and the emerging (sub)units they construct. Marked departures from, or insertions in, what is more narrowly on the agenda, e.g. the production of the relevant next move in an IRE-in-progress, are frequent in institutional talk. My aim is to investigate these practices and make some contribution towards locating them more centrally in linguistic and educational research.

The theoretical orientation of this investigation is interdisciplinary. Departing from a sociocultural view of learning as mediated in social situations, its emphasis is on online discursive practices: ‘situated action’ in institutions and communities of practice (cf. Cole, Engeström & Vasquez 1997; Duranti 2001; Hanks 1996; Johnson 2006; Lave & Wenger 1981; Leather & Van Dam 2003). Such a view has to go beyond a ‘fly-on-the-wall’, closed-system approach to the analysis of linguistic data.
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in educational multiparty settings, as the latter is ill-equipped to capture emergent or complex readings of the situation that participants orient to when interacting with each other (cf. ‘meaning potential’; Halliday & Hasan 1980). Speech genres (Bakhtin 1986) and sets of conventions along which they differ (e.g. formality/informality; Irvine 2001) are both globally given and locally shifted into, or out of, in the course of discourse-units-under construction (cf. PUSH- and POP-markers; Polanyi 1988). They can be embedded, interrupted, invalidated or stacked and re-embedded on a moment-by-moment basis. Different practices or genres may be simultaneously in force (cf. Kamberelis 2001: ‘hybrid discourse practice’) and they are interdependent: “this interdependence is something that social actors can exploit by altering their behavior to bring about a redefinition of the situation and the identities that are relevant to it” (Irvine 2001: 203). Proposals to track and model these online frame breaks and footing changes (Goffman 1974; 1979; 1981) crucially depend on a rich notion of what are the data that need to be addressed (cf. Bannink & Van Dam 2006; Polanyi & Scha 1983; Polanyi 1988; Van Dam Van Isselt 1993; Van Dam 2002). Precise observation and attention to micro-ethnographic detail are of vital importance. The nonverbal, prosodic and paralinguistic markers that routinely accompany talk in interaction often signal these online framing practices (Goffman 1974; Kendon 1990). Thus, what constitutes a move in one domain may have repercussions in another: update the conditions for the interpretation of next incoming utterances or even re-open or re-analyze those already in the common ground.

Some background information on the institutional situation under investigation is in order. There are about seventy students in the rectangular lecture hall. They are distributed unevenly over approximately twenty rows. The participants are first-year science students enrolled in a course called ‘Symmetry and pattern formation in science and nature’. This is the second lecture. At the beginning of class the lecturer has announced that today they will make a start with the ‘real’ work: doing mathematical calculations on the blackboard in order to discover the characteristic properties of symmetry groups (‘Dieder groups’) and other recurring patterns in science and nature. He refers to this exercise as a step towards grasping the ‘grammar’ of Dieder groups, thus suggesting a correspondence between learning the rules of a language or linguistic system (which most students have some familiarity with) and being initiated into a new formalism in the exact sciences.

For reasons of space and readability, and because it is not absolutely necessary to illustrate my point, no detailed transcriptions of the video data will be provided. The segments of talk I zoom in on are brief. They are transcribed in English unless there is a specific reason to include the Dutch original. Question marks will be used to indicate rising intonation, and dashes to indicate an unmarked pause (approximately 0.5 sec.). Other relevant details will be mentioned in the
accompanying text and glosses. Note that some utterances that are barely audible are so also in the original setting; they are part of the data in multiparty settings.

In order to construct plausibility for the move-by-move interpretive processes that participants bring to bear upon utterances and events in evolving discourses (‘incremental parsing’; Polanyi 1988), I present the transitions between the discrete subunits hypothesized in the IRE one by one, starting with the initial teacher Question. Capitals will be used when abstract categories rather than actual instances of question-answering are intended.

The relevant strips of video footage can be viewed in a page added to the demo of the university web-site-under-construction (see below). The video data also serve as a check on the analyses: I only zoom in on small segments, but readers can also ascertain themselves of what it is that’s left out. The successive segments and the episode as a whole can be viewed at: http://www.science.uva.nl/research/amstel/dws/competenties/index.php?page_id=1559.

3. Beginning of the episode: The Teacher Question slot

The video footage begins when the teacher turns away from the blackboard on which, in close collaboration with the students, he has been doing mathematical calculations concerned with the properties of symmetry groups. He walks over to the table at the front of the lecture room, opens a plastic bag that had been lying there all along and produces an apple that he holds up to the class. Smiling in a somewhat mischievous, conspiratorial manner, he says: “ik heb nog iets bij me”. This clearly introduces a new episode in the lecture and translates approximately as: ‘I’ve brought something along’ — except that Dutch ‘nog’ implies a connection with the previous episode that is difficult to convey in the translation. I will return to that issue later (for video link, see Section 2 above).

T I have brought something along
[holds up apple, looks into lecture hall, makes eye contact]
[louder, clear]

Q: “What is the symmetry group of an apple?”[pause]

“If anyone really knows they should keep their mouths shut”
[Student: “but …]
The lecturer’s change in posture and tone of voice cue a juncture between major episodes (Erickson & Schultz 1997: 23) in the lecture event. But there is also topical coherence with the immediately preceding calculations on the blackboard. The question about symmetry groups now applies to a concrete object in the here-and-now world of practical experience rather than that of abstract rule-governed systems. But the Dutch particle ‘nog’ also suggests continuity with what went on before: non-closure. The expectation is warranted that in some sense the question initiates a subunit to an ongoing unit that is still open.

The production format (Goffman 1981: 144–146) of the question contextualizes it as indeed realizing the first part of a canonical IRE sequence which invites a response from the students in next slot. Bodily orientation, gaze direction (seeking eye contact with the students), rising intonation and a marked pause at the end suggest that the institutional answer slot is now open. In principle the next relevant act is for one of the students to volunteer and provide a possible filler for that slot (cf. McHoul 1978). However, exploiting the margins of the turn-constructural-unit (TCU) in progress, the teacher adds, in a marked change of voice and register:

\[ T \text{ If anyone really knows — they should keep their mouths shut} \]

This seems an odd, almost incoherent, move to make. It introduces a complexity in the discourse situation that obscures what would be a relevant next move. Felicity conditions for utterances of the type ‘question’ (Austin 1962; Searle 1969) require that they have a knowing addressee — even in the classroom. If knowing the answer disqualifies students from taking the floor, and not knowing the answer leaves them at a loss for something to say, no one may qualify as next speaker. The teacher aside seems to yield pragmatic failure, a double bind in the interactional domain.

A characteristic feature of double binds is that they cannot be resolved in the current domain, but must be shifted to other contextual domains (Bateson 1972: 206 ff.). The teacher’s metacomment has explicitly ruled out the option that this is a display question that invites an institutional short-form reply from a knowing student. A different game is being played here.

The teacher’s unmitigated tongue-in-cheek directive to students who know the answer to ‘keep their mouths shut’ also extends an implicit invitation to the (complementary?) subset of non-knowing students to speak up. His use of the more colloquial idiom and register (‘keep your mouths shut’) realizes a shift in formality, a redefinition of the situation (Irvine 2001: 203). More informal events are typically associated with less consistency in code use; a greater range of participation modes and a shift away from a central focus of attention.

As Goffman has noted (1981: 145), embedding a more informal footing or stance in an interaction-in-progress invites a reciprocal footing change on the part of one’s interlocutor(s): one conversational aside invites the next. There is soft
laughter and one of the students even challenges the teacher’s odd move with a barely audible: ‘then there’s no one … [xxx ]’. The teacher follows up this challenge with a conversational response: ‘Well — I mean — if someone just told you’. Thus a brief flurry of talk, pseudo-conversational byplay (cf. Goffman 1979) inserted at the edge of an institutional discourse-unit-under-construction, updates the contextual parameters both for the question itself and for what is to come.

Institutional presuppositions for question-answering having been partially or temporarily invalidated, the discourse automatically shifts to the embedding default cultural genre: informal conversation (Levinson 1983: 284). The by-play with one of the students across institutional roles has paved the way for a more open state of talk associated with informal responses and participation modes in non-institutional settings (cf. Goffman 1981). And indeed the collective lecture floor now breaks up in multiple subfloors which yield half-off-record hypotheses about where to look for an answer rather than the answer itself (e.g. ‘endless rotation’; ‘there is a core in there’) as well as lively ingroup talk and gesturing. Thus a procedural redefinition of what it was the question asked is involved.

But this is not ‘conversation’. It constructs a continuum of institutional subdomains in which the range of appropriate responses to an academic content question is considerably wider than in the public arena of the lecture hall. On the basis of self selection one can venture guesses, brainstorm with others, make a joke, and share associations and suggestions in peer-mediated scaffolding (Vygotsky 1978), which may even re-include the students who knew the answer, but who were initially ‘excluded’. In fact, almost any response that is topically coherent is allowed — except perhaps producing a correct short form institutional answer.

4. Answer slot: Re-embedding ‘conversation’

There are indications that the students have indeed interpreted the teacher’s metacomment in line with the above conjectures. They come up with a wide range of simultaneous verbal, half-verbal and nonverbal reactions that clearly do not aspire to the status of public ‘answer’ (see link at end of Section 2).
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The floor is now open for informed guesses or tentative hypotheses on a free-for-all basis. There is evidence of all-round involvement and cognitive activity going on. Participation varies along a continuum of verbal, vocal, nonverbal and paralinguistic modes; one would need a ‘musical score’ type transcript to represent them (cf. Bannink & Van Dam 2006: 293). There are comments about the properties of apples (“there are pips in there”); half-aloud peer mini-conversations; muttered self-talk; there is gesturing that semiotically models rotation. But it is also possible to have brief exchanges with the teacher, who for most of the time is listening attentively without providing explicit feedback moves.

The teacher interventions in the interactional domain have also triggered a parameter reset (reframing) in the pragmatic domain. If students are allowed to speak only if they are not supposed to know the answer, loss of face is hardly an issue (cf. ‘the fool’s impunity’). There is no enforced participation in the sense that students are obliged to actually say something. Just thinking (cf. Vygotsky) or listening in on your neighbours is also an option. This does not exclude students who know the answer. The multiple parallel subfloors allow for a range finely-tuned participation modes. There is scaffolding by peers as well as by the teacher.

The lecturer continues to gaze into the lecture room expectantly, smiling, seeking eye contact with yet other students or listening in on their talk. Occasionally he follows up a suggestion offered half-aloud with brief comments, carefully avoiding any suggestion that he might be producing a 3rd-slot institutional Evaluation move that would close off the sequence. The floor remains open. While the students at the front of the hall continue to come up with suggestions he invites a student volunteering at the back of the lecture room to speak up, seeking to involve also those who are less active. His follow-up move to this contribution contains some false starts and self-corrections, consistent with more informal speaking roles. He carefully retraces the train of thought that informs the ‘answer’ and relays it to other students for approval: ‘don’t you agree?’ (again in parenthetical mode).

Stimulating all students to apply mathematical concepts to concrete objects in the physical world and thus construct empirical evidence for the abstract mathematical calculations they had been doing, is clearly what the lecturer was after. In institutional multiparty situations an immediate correct answer signals closure. As in riddles in informal situations (cf. Goffman 1981: 54), the interaction would fall flat. Delaying 3rd-slot evaluation moves creates opportunities for all students to explore different ways of reasoning and relate new knowledge to old. This is neither ‘doing conversation’ nor ‘institutional talk’. Mixed genre forms allow the fine-tuning of tasks and interactional formats to each student’s information state and confidence.

At this point the teacher signals that exploration time is over. A rerun of the question spoken in loud voice: ‘But what is the symmetry group of an apple?’
signals the return (‘POPs’ the discourse back) to the IRE answer slot that is still open. The teacher walks over to the table, muttering: “I already heard it” (i.e. the correct answer) and “hope you can see it — it’s rather an old apple”. He takes a knife from under the plastic bag, cuts the apple in two equal halves along the middle horizontal axis and enthusiastically shows them to the class (video link provided at the end of Section 2):

\[\text{L (self-talk) “Aah- you can see it quite beautifully”}\]

\[\text{“You see? — a really quite clear five-fold symmetry ..”}\]

\[\text{[delayed SS laughter]}\]

The lecturer’s muttered “I already heard it”, immediately before the imminent disclosure of the ‘real’ institutional answer, creates yet another demonstration of how complex hearing and speaking roles may become. In a kind of self-talk that is ambiguous as to whether students are meant to overhear it, they are informed that he heard the correct answer already among the suggestions provided in the preceding episode. But apparently he chose to ignore it/them, casting himself in the role of overhearer rather than default recipient of student answers (cf. McHoul 1978). In some sense this is consistent with his remarks at the beginning of the sequence. Having disqualified knowing students as legitimate participants at the beginning of the sequence, his obligation to acknowledge correct answers in the public domain has diminished. But now that the ‘real’ institutional answer move is finally due, the lecturer can cast himself in the role of just relaying it: being its animator rather than its author or principal (Goffman 1979:17). The effect is that the institutional answer move is not marked with respect to normative speaker change in the IRE. This is not teacher monologue, in the sense that the teacher can be said to answer his own question. The answer is co-authored across institutional roles, an instance of what Bakhtin (1986) might have called appropriation or dual voicing in dialogue. Note that zooming in on interactional detail inside specific discourse practices (Kamberelis 2001) brings to light this shifting into and out of current speaking/hearing roles while still remaining ‘the teacher’, i.e. the principal (Goffman 1979:17) whose responsibility it is to orchestrate the talk.
5. So what’s the point? Evaluation in local and global classroom domains

When the apple is cut in halves and the verbal answer is finally disclosed, it takes some time for the penny to drop. To some students it clearly comes as a surprise, also because it is produced in half-off-record mode, as an item that is already obvious to all, already in the common ground. There are delayed reactions in the lecture hall: puzzled laughter, quizzical looks. The lecturer picks up these signals and proceeds to construct face for those who clearly had something quite different in mind. Here’s a global transcription in English:

L [shows apple halves all around] You see — a perfect *five-fold* symmetry
[SS puzzled laughter]
the *funny* thing is — we’re all so conditioned ( ..) because the
first apple that your mother cut for you — was in *four* parts — -
but that’s a very — inefficient way of cutting apples ..
[student laughter]

Any wrong answers that students might have had in mind, or actually produced in off-record domains, are now neutralized with respect to individual face loss in a shared cultural domain: as residing in unmarked procedures for doing things that are established in childhood. The lecturer shifts into a narrative mode and calls up a scene in which ‘your’ (i.e. a generic student; cf. Davis 2007: 179 about the use of personal pronouns in lecture classes) mother cuts an apple in four parts. In a pseudo-serious, tongue-in-cheek manner he then frames the normal way of cutting up apples as patently ‘inefficient’. He corroborates these remarks by staging another demonstration of what can be gained by doing it in accordance with scientific findings about the internal structure of apples — which elicits more laughter and comments from the class.

The sequence culminates in a joke that again plays upon the difference between default cultural procedures of going about the business of cutting up apples and scientifically sound ways of doing so: “I have never seen anyone cut an apple in five parts”. This is rather hilarious and there is now laughter all around. But the joke also illustrates a point that is relevant beyond the immediate local circumstances. It is relevant to initiating first-year students into the academic community and the business of doing science which, as novices or ‘legitimate peripheral participants’(Lave & Wenger 1991), they are about to get involved in. Scientific inquiry presupposes systematic observation, an awareness of cultural bias and the willingness to go beyond superficial investigation of the phenomena under scrutiny. If we *really* want to know we have to look *inside* the apple.
6. In conclusion: Discussion of findings

When the lecturer was shown the video footage of the episode investigated in this paper, his first remark was that it seemed “rather chaotic”. Indeed, when the formal lecture floor that is characterized by a central role for the teacher (McHoul 1978) temporarily yields to an array of many simultaneous subfloors in which students are free to adopt informal and off-record participation modes (cf. Bannink & Van Dam 2006: 292–293), there is bound to be a certain loss of focus (Irvine 2001). But, as I have tried to show, there is also (task-oriented) order in this apparent ‘chaos’ (cf. Larsen-Freeman 1997).

The structural analysis undertaken in this paper traces the various consequences of a complex frame break (or footing change, cf. Goffman 1974; 1981) at the edge of an IRE Initiation-move-in-progress, made by a lecturer in the course of an institutional discourse unit. Cued by linguistic, prosodic and paralinguistic markers, it invited a corresponding shift on the part of the students in the interactional domain and triggered the re-embedding of informal conversational participation formats. In the task domain it paved the way for inquiry-based peer-mediated cognitive activity on the part of a large number of students. In the pragmatic domain (Politeness/Face systems) it largely invalidated any threat of public loss of face. Thus a marked IRE structure emerged, with complex parameter values for the author of the R-move, and the significant absence of explicit local evaluation moves of most of the students’ contributions.

Cognitive processes do not involve the transmission of knowledge from an expert to one or more novices. They are mediated in social situations (Lave & Wenger 1991). In tracing how an institutional triadic unit like the IRE evolves over time in an unpredictable nonlinear manner as a result of the local interventions of participants, we do not suggest it is irrelevant to what happens there. On the contrary, it provides an anchor to sort, i.e. abstract away from, the data. Without such an anchor we would not have noticed — in a strict sense — how the embedding of conversational participation modes and the significant absence of 3rd-slot teacher evaluation moves generate differential opportunities (‘affordances’; cf. also Bannink & Van Dam 2006; Hall 1997) to scaffold the learning of many.

As educational researchers, we will only know how to go about the business of sorting multiparty data when we have had a good look and have developed a fine ear for the orchestration of multiple voices that is the hallmark of gifted and committed teachers. Zooming in on details of interactional behaviours that may not be obviously relevant at first sight, and on their effect in social situations, requires us to go beyond dichotomies like monologic/dialogic genre (see also Wells 1993; 1999) and formal/informal interaction systems. These systems are never static. Research on face-to-face communication in multiparty educational settings should
not be blind to online framing practices and the internal structure of emerging discourse units. We have to refine our analytic tools and look inside the apple to discover the intricate patterns that lie hidden there.

Note

1. Both the collection of data and their analyses have come about in close cooperation with Anne Bannink. Many thanks are due to the lecturer who allowed us to make the recordings and publish these data, and to the students who gracefully ignored our presence in the lecture hall. I thank Anne for her valuable comments. Any faults or infelicities are of course mine. The video materials that accompany this paper can be viewed at the ‘Research Paper’ page in the demo of the university web-site-under-construction (link provided at the end of Section 2 in this paper).

References


Van Dam Van Isselt, H.R. 1993. 'Her name is — uh dat weet ik niet'. Authenticity in the L2 classroom. PhD diss, University of Amsterdam.


Author’s address

Jet van Dam van Isselt
Frans Halsstraat 17-hs
1072BJ Amsterdam
The Netherlands
h.r.vandamvanisselt@uva.nl