

## A PROSODIC ANALYSIS OF TWO EARTHQUAKE NARRATIVES

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### ABSTRACT

This paper analyzes the prosody of two narratives of the 1989 San Francisco earthquake, in order to show that a consideration of prosody can be an important part of narrative analysis. The focus is on two aspects of the narratives: their structure, and the humor used in them. It is shown that prosody plays an important role in delineating the structure of a narrative, and perhaps should be used as a criterion when choosing a theory of narrative structure. It is also shown that prosody has an equally important but less easily described role in signalling attempts at humor.

### 1. INTRODUCTION

This paper is a continuation of work I began in a paper titled "Earthquake Narratives" (Luebs 1992). In that paper, I proposed that the stories people tell about their earthquake experiences form either an identifiable sub-genre of the well-known discourse genre "narratives of personal experience" (Labov 1972) or part of a network of types of such narratives. In my analysis of earthquake narratives I discussed narrative structure, but did not address issues of intonation or other prosodic features. In the current paper I attempt to show how a consideration of prosody affects and interacts with a more traditional non-prosodic narrative analysis.

There has been a great deal of work done on spoken narrative, but much of it omits discussion of prosody. An important exception to this is the work of several anthropological linguists (e.g. Tedlock 1983, Sherzer 1990, Woodbury 1987), but their work differs from mine in that it usually deals with formal tellings (or rather retellings) of traditional stories, whose prosodic patternings are (relatively) fixed and easy to recognize. However, the prosody of casual narrative deserves study as well, since discourse analysts who study casual conversation have shown that prosody plays an important role there (e.g. Gumperz 1982, Sacks, Schegloff & Jefferson 1974, etc.).

The paper is divided into two main sections: narrative structure and humor. In the first section I begin with a brief discussion of theories of narrative structure and then examine my data for evidence of prosodic correlations with the theories. In the second section I discuss the use of

prosody in expressions of humor and other dramatic devices present in the data.

### 2. DATA

The current paper analyzes sections of two earthquake narratives (see transcripts in Appendix A), told by a 29 year old woman (Sarah) and a 28 year old man (Dan). (This is a subset of the original data, the narratives of 14 people who experienced the 1989 earthquake in northern California.) The speakers are both white, both native speakers of American English, and both veterans of previous quakes (although the man is not a native of California). I chose to focus on these two mainly because the recordings are of better quality than some of the others, and also because it seemed interesting to examine tapes of both a man and a woman, of similar age. I have pitchtracks of both narratives.\*

I taped the narratives about two months after the quake, which meant that the experience was still fresh in people's minds but the stories had been told many times already and have a "practiced" quality about them.

The taping was done in formal interview style, with the participants seated together at a table, and the subject given the cue "Tell me about your earthquake experience." However, other factors help to make the narratives more "natural". For example, since all subjects were either family members or close friends of mine, there was a good rapport between us. Also, the subjects knew that because I had not experienced the earthquake, I was truly interested in hearing their stories, not just in collecting them for a project. In fact, because of my great interest I often stepped out of the role of passive listener to ask questions or make comments. These interruptions may seem like annoying breaks in the narrative flow, but would be quite common in any truly "natural" narrative-in-conversation.

A note on notation: I have not tried to represent prosody in the transcripts in Appendix A, except for impressionistic details such as italics for extra stress. Within the body of the paper I occasionally represent intonation using boldface for a fall in pitch and all caps for a rise.

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### 3. PROSODY AND NARRATIVE STRUCTURE

#### 3.1 Theories of Narrative Structure

In my earlier paper I discussed Labov's (1972) classic 6-part structure of narrative (abstract, orientation, complicating action, evaluation, result/resolution, coda -- all of which are optional except complicating action), rejecting it in favor of Johnstone's revision (1990). Johnstone shows that a story consists of a mix of orientation clauses and narrative clauses, that result/resolution is simply a part of the narrative core, and that the abstract and coda function as the entry to and the exit from the story. Both Labov and Johnstone make it clear that evaluation should not be conceived of as a formal section of a narrative, but rather a functional strategy which may take many forms throughout a narrative.

I then argued that because Labov's and Johnstone's theories of narrative structure are so general, it is hard to use them to study particular types of narrative. Labov's theory in particular seemed suspect to me, because he based it mainly on one type of narrative, what he calls the "Danger of Death" narrative (subjects were asked "Were you ever in a situation where you were in danger of being killed?"). If it could be shown that different types of narratives have their own different types of structures, this would be evidence for the need for a new theory of narrative structure. Accordingly, I went on to propose my own very specific structure of an earthquake narrative, as follows: (1) orientation; (2) quake begins; (3) speaker responds to the quake, as do objects and other people; (4) quake ends; (5) speaker sees-realizes-finds out about-responds to things.

This structure works very well -- all the quake stories I collected from adult speakers follow it almost exactly. But what is particularly interesting about it is that it is so dependent on the actual physical occurrence being talked about (i.e. the earthquake). The earthquake really seems to drive the story, determine how it will be told and in what order. Intuitively this does not seem odd, but it is in conflict with the vast amount of linguistic literature which claims that the content of an utterance is totally irrelevant in a discussion of its structure.

#### 3.2 Prosodic Correlations

When the data is examined for prosodic correlations with narrative structure, there are some interesting results. Perhaps the most surprising is the correlation with the narrative structure of earthquake stories. The five part structure is of course not five equal parts, but rather three sections divided by two boundaries: (2) quake begins, and (4) quake ends. The boundaries themselves are not always well marked, even lexically: Sarah does say "and all of a

sudden we felt this shaking" (line I.10) but Dan does not specifically introduce the quake; Dan does say "right after it.. after it.. stopped.." (line II.72) but Sarah never specifically refers to the ending. However, there is a difference in the prosody of part (3) compared to parts (1) and (5) which seems to be related to the topic being discussed.

In part (3) the subjects are describing the quake and their immediate response to it, and in this section they sound decidedly more animated than they do in sections (1) and (5). This makes sense intuitively: the events described are exciting, what with all the unusual movement going on, and so the speakers use prosody to try to convey this. One of the things they do prosodically is to extend their range, bouncing from their normal low pitch to a higher than usual high pitch and then back down again, in many of the intonation units in this section. For instance, Sarah's average high pitch (i.e. highest pitch in each intonation unit divided by number of intonation units) is 280hz in part (1) and 260hz in part (5), but in part (3) it is 335hz. Likewise, Dan's average high pitch is 138hz in part (1), and 139hz in part (5), while in part (3) it is 165hz. For both speakers, the average low pitch stays about the same in each section. These numbers are shown in the chart in Table 1 below. Average difference refers to the difference between the highest and lowest points in each intonation unit divided by number of intonation units.

I. Sarah			
	avg high	avg low	avg difference
prequake	280	155	125
midquake	335	156	179
postquake	260	163	97
II. Dan			
	avg high	avg low	avg difference
prequake	138	96.5	41.5
midquake	165	92.5	72.5
postquake	139	91.3	47.5

**Table 1:** Differences in pitch range within intonation units in different parts of the narratives.

This result is only a very rough suggestion of iconicity between prosody and content or structure, but it is certainly interesting. There may be other things going on as well: for instance, I believe loudness and speed also increase in part (3) but I have not measured this. One real problem with my calculations is the question of what an intonation

unit is: for this study I used very loose criteria for deciding what one is, and it is possible that the results would change if the units were divided differently.

There are no such obvious correlations between Labov's narrative structure and the prosody in these narratives. In the past I have tried to use Labov's structure to analyze narratives and have had trouble deciding whether a line was complicating action or orientation, for instance. Although I had hoped that prosodic factors could make this easier, they do not seem to. Although one might expect some prosodic distinction between orientation and complicating action, since the latter is moving the action forward but the former is not, I have not yet discovered any such distinction.

The other clearly present prosodic correlation with narrative structure is that of prosodic paragraphs or paratones (Brown 1977, p 86), discussed in greater detail by Janet Bing (this volume). I have not yet delineated these precisely in the earthquake narratives; however, it seems clear to me that the text is divided into a series of these little episodes, which are marked prosodically as well as lexically. The beginning of each episode is typically preceded by a long pause, and then has a dramatic rise and fall (although the line may not be very exciting in content), plus a discourse marker such as "so" or "and then". The introductory lines of these speech paragraphs are particularly obvious in Dan's narrative because he keeps restarting -- he seems to begin his story, but then backs away and gives some more background information, which tends to be lower-pitched overall, with less-dramatic falls and rises. An example is given in Figure 1 (line II.35).

#### 4. PROSODY AND HUMOR

In this section I discuss some of the speakers' attempts at humor in their narratives, and how this involves prosody. Although I had originally hoped to be able to identify the prosodic cues most typical of humor, this turned out not to be possible. Several different prosodic cues are associated with the examples of humor in these narratives; it will take more research to determine exactly how the system works.

Humor is a logical area in which to study prosodic cues, since it is an accepted bit of folk linguistics that prosody is a part of what makes funny things funny. I have found that often people will not think a transcript of a narrative is funny at all, but when they hear the tape they laugh out loud. I have been particularly interested in the humor in these narratives, as one might not expect humor in stories about something that killed 65 people and caused \$7 billion of property damage. However, humor is in fact a common response to disaster, at least in our culture (see e.g. Oring 1987, Wolfenstein 1957, for discussion). The humor in earthquake stories seems to be both a way of coping with this disaster (by belittling it) and a way of

defining how the community will approach the on-going threat of earthquakes.

In another earlier paper (Luebs 1991) I discussed the different examples of humor that are present in the earthquake data. By humor I do not mean specifically jokes, but rather more subtle attempts at humor (something like what Long & Graesser 1988 call "wit"). Typical quake humor seems to deal mainly with (1) the "stupid" things people do and think during quakes, (2) the absurd things or situations caused by quakes, and (3) ridiculously unsafe (considering that this is earthquake country) buildings or other structures, and people's lack of preparedness for quakes (despite the ever-present threat).

One thing I have found difficult is how to decide what in the narrative is actually intended to be humorous. In this paper I will simply assume that something is humorous when I or the subject laugh at it. I am sure this criterion leaves out some attempts at humor and includes some things not meant to be humorous; however, I think it is adequate for a preliminary look at humor and prosody. In this section I will first describe the prosody of utterances which provoke laughter, and then discuss the similarities and differences.

##### 4.1. Sarah's narrative

In Sarah's narrative, laughter occurs at lines I.7-8, I.22-28, and I.48-51. The first of these is in the pre-quake section, while the other two are mid-quake. The pre-quake humor, line I.7: "in one of those *old army buildings* (laughs) made of cement" (see Figure 2) is an ironic comment about the unsafeness of the building she and her co-workers use as an office (humor type 3). Line I.8 "you don't know how well they're reinforced" explains the joke more clearly. Sarah pauses briefly before line I.7, puts extra emphasis on the words "old army buildings" but pitches them fairly low for her (180-200hz) in a kind of monotone, and lengthens the word "old" so that it is about as long as the following two-syllable words, causing it to stand out. She also laughs, probably the safest way of telling someone that something is supposed to be funny.

In lines I.22-28 she is describing the foolish action of a friend and her and others' response to it (humor type 1). In line I.25 she tells what the friend did ("*stuck his head* out of the WINdow"), in line I.26 she explains why this was dumb (the windows "slam down"), and in lines I.27-28 she describes their reaction to this. She slows down a little and stresses "stuck his head," with a HL on "head" and on "window"; she also slows down and stresses both words in "slam down." Her voice is pitched very high through this whole section, mostly in the high 200's, 300's and above, and she is also laughing. When she imitates their screaming she goes even higher, perhaps into falsetto, laughing hard.

In lines I.48-51 she is also "reporting" speech, first the voice of a teacher who did not understand why her students were running outside, and then the (collective) voice of a group of young students defending themselves (humor type 2). For the teacher's voice Sarah goes up high and stays there, in almost a monotone, and stretches out the words a little so that sounds such as the vowel in "what" are much clearer than they would be in normal speech (see Figure 3). When she imitates the students she lowers her voice a little (not much) and puts in more normal intonation, but it still sounds different from normal speech (or normal screaming). She also laughs during her imitation of the students.

What these three examples have in common is some distortion of the "normal" speech patterns, but the nature of the distortion varies. Extra stress and volume are common, as is a reduction in speed. Sarah's cues aren't subtle; she has road signs all over saying "this is funny -- be sure to laugh at this." However, she uses these prosodic devices in other parts of her narrative where she is not trying to be funny (i.e. lines I.32-33, line I.44). She seems to use unusual intonation as often for excitement or emphasis as for humor.

Sarah avoids humor in the post-quake part of her narrative. In lines I.67-73 I think I was expecting her to be leading into humor, making fun of herself and the other teachers, but instead she ends line I.72 with a rise which makes her sound serious, hinting at the disaster she was soon to discover. Later, in lines I.85-89 she continues this tone, sounding almost ominous as she describes the "black puff of smoke" that rose "up from over the hill". She slows down and speaks softly but intensely. In addition, the words "black puff of smoke" are spoken with slight pauses between them. (see Figure 4).

## 4.2. Dan's narrative

In Dan's narrative, laughter occurs around lines II.15-20, lines II.45-48, line II.57, lines II.66-71, and lines II.82-83. He has pre-quake, mid-quake, and post-quake examples of humor. The first is his first attempt at beginning the story. He starts out in a somewhat dramatic voice "OcTOber seventeenth, NINeteen eighty-nine" but then, perhaps because he thinks he sounds pompous, begins to get silly -- he says "I.. Dan SULiVAN" with exaggerated intonation, does a dramatic swooping HL on "FORmer housemate" and then lapses into teasing with "erstwhile lover." This doesn't fit into my 3 types of humor -- it is more the nervous joking of someone embarrassed about being taped -- but it may also be related to the struggle my subjects experienced in talking about a frightening experience while trying to maintain their control over it.

Line II.45 caused me to laugh during the taping, but I am not sure Dan meant it to, because after he says it he appears to try to defend himself against my laughter.

However, this "defense" is also amusing. The intonation in line II.45 is notable because of its *lack* of drama: the line is funny because it is incongruous for Dan to have been making such an exciting announcement so casually. He returns to signalling humor with exaggerated intonation in the following lines, using extreme high-lows on "that was really GOod", "because they didn't KNO-ow", and "that it was an EARTHquake" (see Figure 5).

Line II.57, "uh.. I said "I think we should get under the Table now" (see Figure 6) is funny because as a polite suggestion it is an understatement of what someone might be likely to say in this situation (such as "ohmigod get the hell under the table!"). Dan signals that it is funny by using unusual intonation for a suggestion: staying fairly low (90-110hz) and unstressed until the bounce up to 240hz and then back down to 100hz for "table".

Lines II.66-71 are more subtle humor. The most marked line, II.66 "HE was kind of SMiling at first", is again marked as funny by intonation -- the steep rise on "he", and the rise and fall on "smiling" -- I think "he" is also lengthened a little. Dan also laughs a little at line II.69 "and the smile went away".

In lines II.82-83 he is making fun of himself (humor type 1). In line II.82, "uh and THEN I realized it PRObably wasn't so SMART to go out on the BALcony," he stresses "probably" "smart" and "balcony" and he laughs a little, as do I.

So Dan relies mainly on intonation, and also somewhat on stress. Although I have not measured it exactly, I believe he does not make much use of changes in speed or loudness. He is more subtle than Sarah, at least in this brief section, and does not use as many cues.

## 4.3 Comparison

Although it is evident that Sarah and Dan use somewhat different strategies for humor, there are also similarities. The humorous remarks are always marked prosodically in some way -- extra stress, slowing down and/or lengthening words, unusual or exaggerated intonation. Dan seems to prefer marked intonation, while Sarah, who uses dramatic intonation quite often when she is not being funny, seems to prefer extra stress and length.

It is also apparent that the strategies used for humor are not so different from the strategies used for showing excitement or emphasis. This helps explain why people sometimes "miss" a joke -- the cues are so numerous and varied, and so similar to cues for other things. On the other hand, none of the examples of humor in these narratives is hard for me to spot (but then again, these are my friends). Both speakers made ample use of cues like laughter (and smiles,

as I recall), which may be needed to make it perfectly clear what is intended to be funny.

Sarah's post-quake seriousness has interesting prosody as well, particularly in the way it contrasts with the prosodic strategies she uses for humor. It seemed to me, in my earlier study of the earthquake narratives, that many of the speakers switched between humor and seriousness in different parts of their narratives, depending, perhaps, on whether they were focussing on the humorous aspects of the earthquake or on its disastrous effects. It would be interesting to go back to those other narratives and see what prosodic devices are used by other speakers to convey seriousness or tragedy.

## 5. CONCLUSION

Although this exploration of prosody in narrative is only preliminary, it does raise some provocative points. First, besides adding to evidence for the existence of paratones, it suggests that prosody and narrative structure are even more closely connected than has been previously thought. It strengthens my argument for a specific structure for earthquake narratives and leads to the question of what other structures may be reflected in prosody. It also suggests that researchers interested in narrative and other linguistic structures larger than the clause would benefit from including prosody in their analyses.

The section on humor is more tentative than that on narrative structure, but I believe this is a reflection of the complexities of the subject. Although my data do not identify exactly which prosodic cues signal humor, they do show that humor can be signalled in a number of ways and that prosody is always involved. This does not mean, however, that any and every type of prosody can signal humor. One interesting phenomenon in the data is the evidence that different speakers have favorite prosodic strategies for humor, which perhaps are more or less successful. A possible future research project in this area might study professional comedians, and/or ordinary people rated as funny or not funny, to see how they use prosody differently.

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## Appendix A: Transcripts

### I. Sarah

2 S OK.  
3 we were all having a meeting,  
4 it was in the afternoon after we had let the kids off  
5 and they were all playing.. in.. whatever place  
6 they were playing,  
7 and we were all sitting inside in the.. small  
8 conference room,  
9 (1.5) in one of those *old army buildings* (laughs)  
10 made of cement,  
11 you don't know how well they're reinforced?  
12 we were sitting in there in our meeting,  
13 and all of a sudden we felt this shaking,  
14 and all of us.. turned to each other and we said:  
15 "an earthquake"  
16 and then.. it kind of dawned on us,  
17 wow,  
18 this is really.. *bigger* than we've ever felt *before*,  
19 and so we kind of went "an earthquake",  
20 you know.. with.. more emphasis,  
21 and we all started running,  
22 towards the door and outside..  
23 because if we're out.. far enough there's kind of a..  
24 grassy field?  
25 and we could just kind of escape to that grassy  
26 field.  
27 so we started running outside,  
28 and one of my friends,  
29 who's really a smart guy,  
30 but he was really interested in seeing the earth  
31 move,  
32 and he *stuck his head* out of the window,  
33 we have these windows that kind of (laughs) you  
34 know *slam down* (laughs)  
35 and we were all screaming "Steve!  
36 Get your head out of the window it's gonna" (I: oh  
37 no) "fall down on you" (laughs)  
38 So out we ran,  
39 onto the lawn,  
40 and I guess there was just a few seconds,  
41 between that first initial *jolt* (I: uh huh)  
42 and then when it started really shaking,  
43 and we felt that shaking  
44 and it was *really*.. quite significant you know (I:  
45 uh huh)  
46 we could really feel it.. rolling,  
47 nothing broke--  
48 nothing went out--  
49 all the lights stayed on--  
50 no problem,  
51 but the *kids*,  
52 they were in the dorm--  
53 that *were* in the dormitories--  
54 went *rrrrunning* outside to the parking lots--  
55 and this teacher started screaming at 'em,  
56 cause I don't know what the teacher had been  
57 doing--  
58 but didn't.. she didn't *realize* that there had been an  
59 earthquake,  
60 and.. so she was like.. "what are you doing  
61 running out of the dorms,  
62 you're supposed to be in there at quiet time".  
63 and they're all like "no it's an earthquake (laughs)  
64 we're doing what we're supposed to".  
65 so that was kind of.. you know.. interesting.  
66 and then.. they were from  
67 I Could you see the ground moving?  
68 people have told me about seeing that.. but I'm --  
69 S I have sort of a vague memory w- sitting in the  
70 room--  
71 seeing it move a little bit.  
72 when we were outside I know I definitely didn't,  
73 I just felt a very definite shake. (I: uh huh)  
74 but.. inside I sort of have a vague?  
75 it seemed like things were moving,  
76 but it wasn't really clear.. if they were or not?  
77 I Um hm.. well you were pretty far..  
78 S Yeah.. we were..  
79 yeah..  
80 so we all.. came back inside to finish our meeting  
81 up?  
82 and we.. were kind of like joking about well,  
83 where do you think the epicenter was,  
84 we were all guessing--  
85 and how much do you think it was,  
86 and we were all guessing--  
87 and nobody was even close? you know,  
88 as to how significant it was?  
89 and then,  
90 I Did you still have power?  
91 S And we had power and everything.  
92 and.. a few minutes later it got to be dinnertime,  
93 and we were.. we were sitting around,  
94 and we decided.. you know.. we maybe we should  
95 monitor,  
96 cause these kids live up in Piedmont? (I: uh huh)  
97 and we wanted to make sure that *their* homes were  
98 OK, (I: yeah)  
99 cause.. um we weren't really sure.. so,  
100 we.. we were starting to listen to the radio,  
101 and just before we started to listen to the radio..  
102 up from over the hill,  
103 where you look over towards the m-- you know..  
104 San Francisco Marina area--  
105 there was this black puff of smoke, (I: ohhh)  
106 and it started rising--  
107 and it went across the sky,  
108 and that's when we really got frightened,  
109 oh my gosh.. you know,  
110 something significant has happened..  
111 and that's when we turned on the radio,  
112 and.. started monitoring and listening and stuff?



## II. Dan

1 D [Reading] Earthquake tape two?  
 2 how many stories do you have--  
 3 I Um - t - eleven.  
 4 You'll be twelve.  
 5 D Eleven.  
 6 I'll be twelve.  
 7 OK.  
 8 The twelfth person.  
 9 I've been meaning to write this down.  
 10 my friend Greg Myer wrote a letter to his parents,  
 11 you know, kind of detailing it-- (I: uh huh)  
 12 and I I should have done that while it was still  
 13 fresh,  
 14 but I want my parents want to know about it too  
 15 so, (I: yeah)  
 16 write it all down.  
 17 October 17th, 1989,  
 18 uh I..Dan Sullivan,  
 19 Margaret's former (I: laughs) housemate,  
 20 and uh.. erstwhile lover,  
 21 no no scratch that,  
 22 that's off the record, (I: laughs)  
 23 D (laughs) and uh (laughs)  
 24 I It's also a lie (laughs)  
 25 D (laughs) Dogs, go away.  
 26 and the dogs are harrassing us--  
 27 uh I was in class at the time,  
 28 um.. I have a.. a Tuesday-Thursday afternoon  
 29 class.  
 30 and uh.. it was one of my seminar classes,  
 31 with the chairman of the department.  
 32 and there were just six of us,  
 33 in the first.. of the first year students. (I: uh huh)  
 34 We all sit around this big table,  
 35 and uh.. class goes from.. is it 3:15 to 5:30? or  
 36 something like that?  
 37 I oh my God  
 38 D and uh.. yeah,  
 39 so it was toward the end,  
 40 and uh.. uh there're a couple.. there are two.. o-  
 41 other Californians.. in the class,  
 42 and then everybody else is from oth-  
 43 there's a Korean woman, a Singaporean, and a  
 44 guy from from.. Milwaukee.  
 45 um tsk.. but it happened,  
 46 I I keep trying to go back and figure out exactly  
 47 what happened at the time, um  
 48 you know it's like you *don't* want to relive it?  
 49 but you want to re-experience it again? (I: uh huh)  
 50 you want to know what happened? (I: uh huh)  
 51 but.. I think I stood up and I said-- um  
 52 "This is an earthquake" (I: laughs)  
 53 and kind of identify it for everybody. (I: uh huh,  
 54 laughs)  
 55 and the people in the class afterwards said that that  
 56 was really good,

57 because they didn't *know* .. that it was an  
 58 earthquake, (I: laughs)  
 59 they were wondering what the hell was going on.  
 60 but you could really hear it,  
 61 um there was a re- there was a rumble,  
 62 there's that sound. (I: uh huh)  
 63 uh.. the room I was in had nothing.. free standing,  
 64 it was all fixed.. you know,  
 65 fixed lights and everything--  
 66 and so about probably three or five seconds into  
 67 the earthquake,  
 68 uh.. I said "I think we should get under the table  
 69 now."  
 70 because it was.. becoming uh apparent that it was  
 71 a very strong one.  
 72 big thick slab table something like this one,  
 73 really heavy,  
 74 so we all.. got under the table,  
 75 very quickly.  
 76 and I remember looking at my professor,  
 77 who's this gen.. he's the genius in the department,  
 78 he's in you know a real luminary in the field.  
 79 he was kind of smiling at first.  
 80 and then it kept building,  
 81 and getting stronger and stronger--  
 82 and the smile went away,  
 83 but I'll never forget *looking at him* under the  
 84 table,  
 85 along with the rest of us.  
 86 And uh.. right after it.. after it.. stopped,  
 87 I I ran out onto the balcony,  
 88 to look.. and see what else was going on,  
 89 I could see the palm trees in the Quad,  
 90 sha- uh sw- swaying back and forth and stuff,  
 91 and there were people outside--  
 92 and.. kind of panic-stricken looks on their faces,  
 93 and some people were.. smiling--  
 94 and.. some people were kind of.. whooping,  
 95 and.. you know there's that nervous reaction. (I:  
 96 uh huh)  
 97 uh and then I realized it *probably* wasn't so *smart*  
 98 to go out on the balcony..  
 99 so I went back inside, (I: laughs)  
 100 (laughs) and the alarms went off.. immediately..  
 101 in the building,  
 102 um.. the communication department was rebuilt a  
 103 couple of years,  
 104 it's in the Quad,  
 105 and they uh gutted the building,  
 106 and rebuilt it from the inside out,  
 107 so it's very secure.  
 108 um.. there was no real *apparent* damage  
 109 immediately,  
 110 uh.. but the University did suffer quite a bit  
 111 though,

## Appendix B: Sample Pitchtracks

Figure 1 (line II.35)

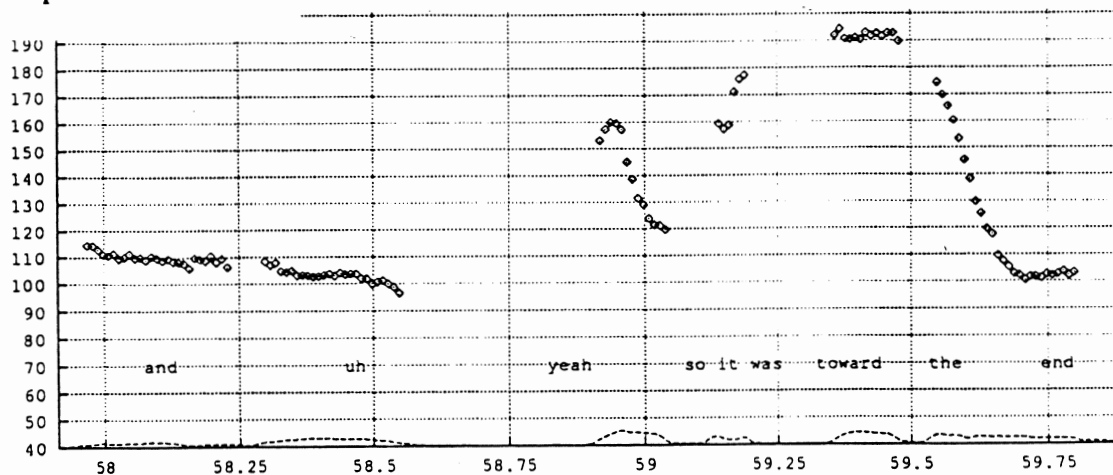


Figure 2 (line I.7)

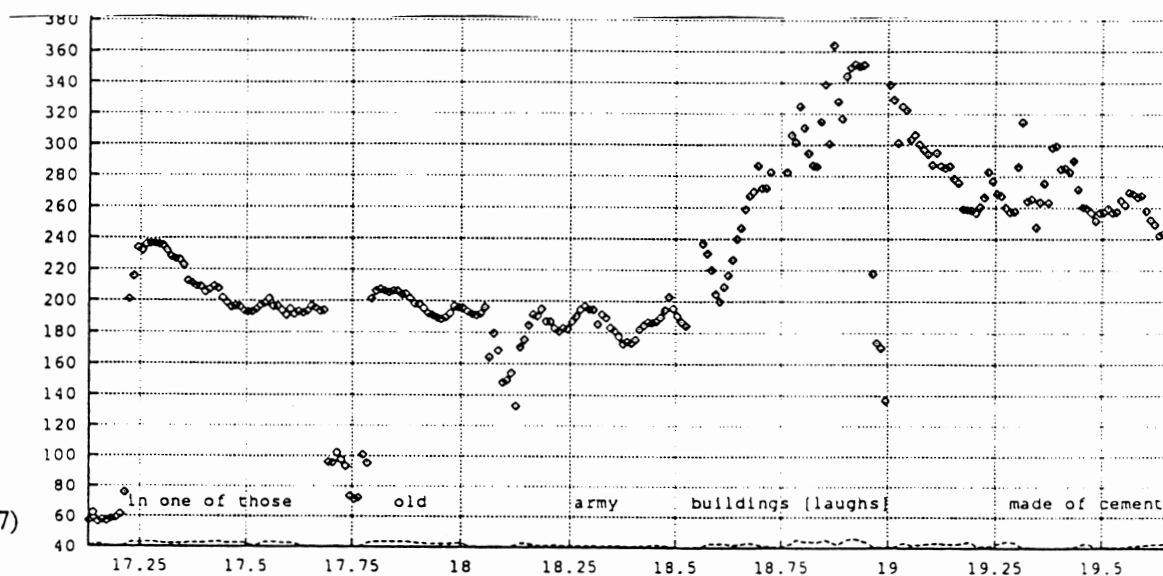
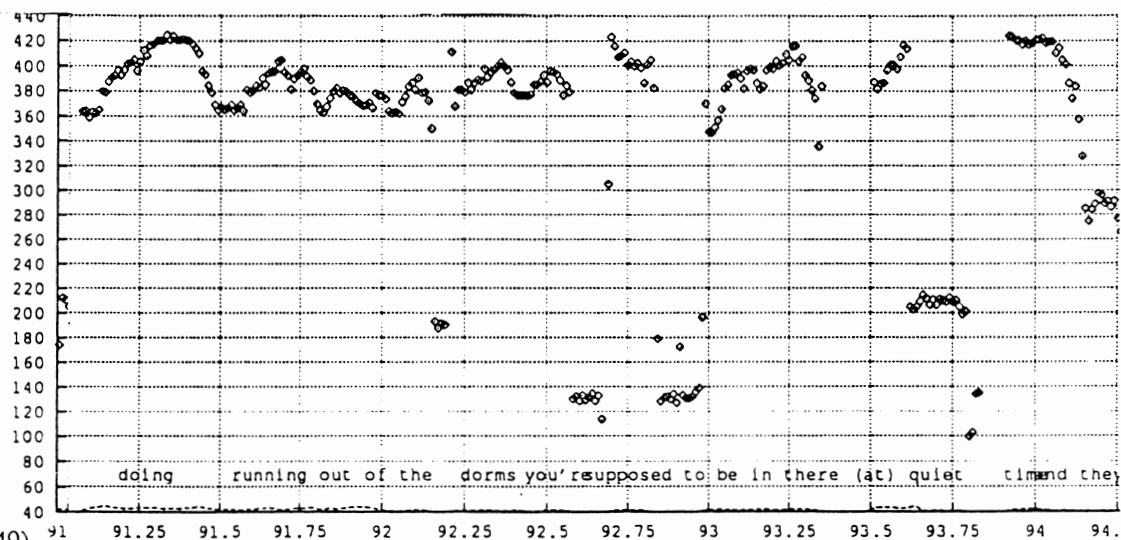


Figure 3 (lines I.48-49)





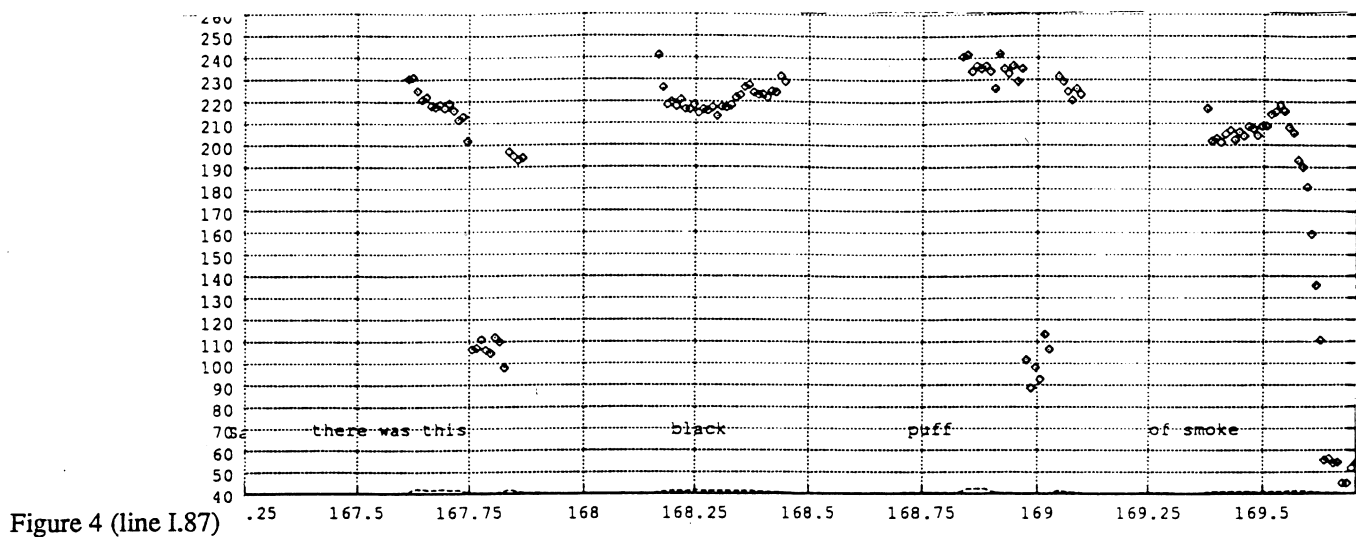


Figure 4 (line I.87)

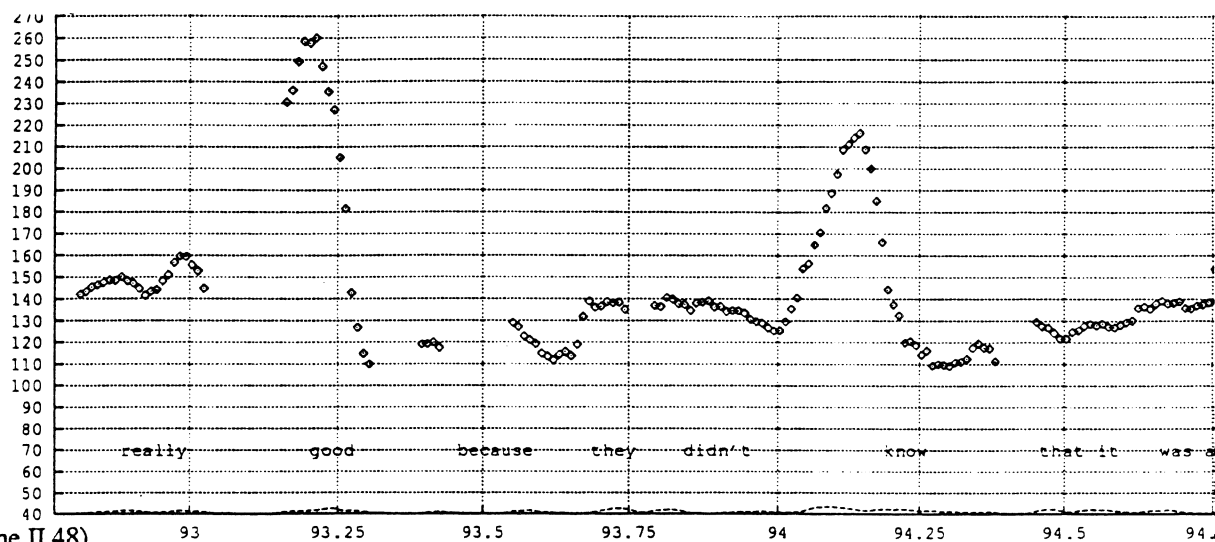


Figure 5 (line II.48)

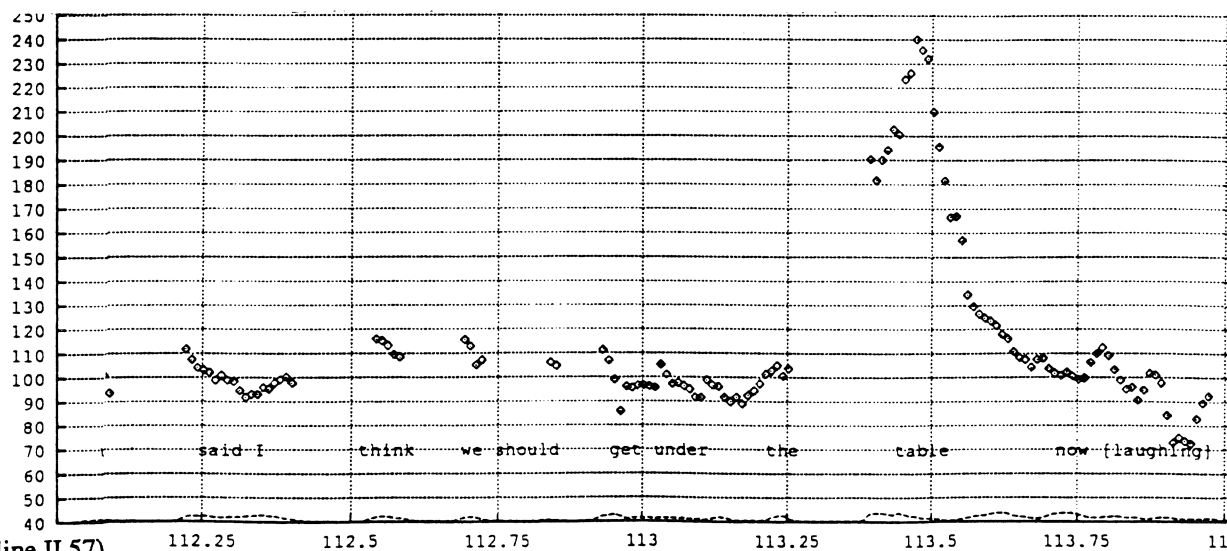


Figure 6 (line II.57)

