Prosodic Aspects of Broadcast News Register
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1. Introduction

One of the distinguishing features of broadcast news is how it sounds. In this paper, I will examine some of the communicative components that make up what can easily be identified as broadcast prosody. Prosody is **key** to defining the broadcast news register and in this talk I will examine data which are an initial attempt to isolate some of the distinctive prosodic variables involved. These data, which consist of analyses of recorded readings of news texts, will point up similarities and differences among performances by readers within and outside the profession, as well as speak to the psychological reality of the register. Among other factors, news broadcasts are marked prosodically by distinctive and quantifiable variations in pause, tempo, and pitch.

I will also note three significant and interconnected factors which influence the prosodic features of this discourse mode: (1) the structure of the news text, (2) the constraints of the medium, and (3) the "discourse relationship" between the broadcast announcer and an unseen interlocutor. Due to the communicative requirements imposed by these factors — which are understood functionally by broadcast professionals — the broadcast news register combines features of discourse modes which are traditionally viewed as distinct: written vs. spoken, conversational vs. more public forms; and formal vs. casual style. That the news register blurs those traditional delineations supports and is supported by more recent empirical analysis that demonstrates that these distinctions are not as binary as initially proposed.

Despite its potential as a source for linguistic information, there has not been a great deal of work done on broadcast news as a particular register, except for Bolinger (1982, 1989), who has observed how radio news announcers distort expected sentence stress and place accentual emphasis on words whether semantically justified or not. It is part of my aim to reconsider these assessments and show the motivations behind news-announcer prosody, and I will start by looking at the work of other researchers who have considered prosody in terms of discourse. This research is the basis on which I analyze my data.

2. Previous relevant work

Researchers such as Levin, Schaffer and Snow (1982) have examined what occurs prosodically when a story is read aloud from a text, as compared to when it is told. Their work is summarized in (1) below. The checkmarks on the chart indicate what features were found in the newscript readings in the data, and make it easy to see that the news stories which I will be discussing show all the prosodic characteristics of reading, as well as many features of spontaneous story-telling.

(1)

	Reading (planned)	Telling (spontaneous)
Pauses	√ at grammatical junctures	√ within grammatical units
Speech rate	√ faster	
Intonation contours	√ follows punctuation (text); terminal falls	√ unifies utterances (listener); non-terminal falls
Silences	√ functional	√ functional
Fillers ("..um, uh..")	√ no	yes
False starts, repetitions	√ no	yes
Lengthened vowels: "drawls"		√ yes
Speaker i.d.		√ before quote

From the chart (1) condensing Levin et al.'s results, we can see what happens when a story is read vs. when it is told. Pauses occur at grammatical junctures in a planned reading, rather than within grammatical units as in a spontaneous telling. Along with that, intonation contours follow punctuation and incorporate terminal falls in the reading, while in the told story, contours rely on non-terminal falls to unify utterances and offer story coherence for the listener. The speech rate is faster in a reading; silences are used functionally in both modes. Fillers, false starts, and repetitions occur in a spontaneous telling, but not in a planned reading. Told stories also incorporate stylistic vocal ornaments, like lengthened vowels on some words. Within the story frame, a speaker who is being quoted is always identified before the reported utterance in a told story.

The checkmarks on the chart show what happened in the news data. Despite the fact that the volunteers were reading a prepared text, pauses occurred within grammatical units as well as at the grammatical junctures more typical of planned reading. The faster speech rate of a reading was evidenced and intonation contours (terminal falls) followed the punctuation indications in a text. The readers also employed the non-terminal stylistic devices (that may be viewed as typical of news readings as well as spontaneous speech). Speaker-tags came before the quotation in the newscasts, just as they did in the told stories.
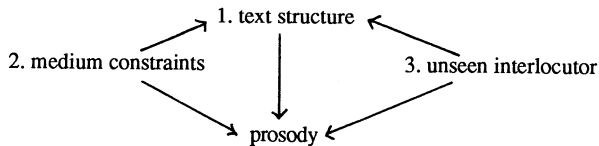
Crystal and Davy (1969) note prosodic phenomena in conversation similar to Levin's, with the additional observation that utterance stretches which are unstressed tend to sound rhythmically isochronous to the listener, that is, accents occur at what are perceived to be regular intervals. (This may be a way of accounting for "misplaced" accents in newscasts, as I will discuss later.)

The work of Johns-Lewis includes experimental evidence that pitch can differentiate discourse modes; together with loudness, it serves to focus and maintain attention in discourse settings where listener attention is problematic. She examined pitch values in acting, reading aloud and conversation, finding the largest fluctuation in mean pitch value in acting, because of a need to "'drown out' competing stimuli" (Johns-Lewis 1986:217), and the smallest in conversation, with reading aloud falling in between. In our data below, we shall see a higher incidence of salient pitches in the text readings that were presented in a news style.

Her work points up a difference between conversation (elements of which show up in broadcast news) and the actual news reading. That a broadcaster is speaking to a generic, unseen audience, much as an actor does, would imply that some of the prosodic characteristics of acting would also be present. In this case, as Johns-Lewis says, "Pitch heightening, and increased loudness, can be shown to involve strategies that are effective in overcoming the two communication problems of 'scattered attention' and segmentation of utterances" (Johns-Lewis 1986:217) — problems that plague the actor on the stage and the radio announcer who has to compete with other demands on the listener's attention.

3. Relations among broadcast prosody motivators

As I noted earlier, I will look at three significant factors which influence the prosodic features of the broadcast news discourse mode: 1) the structure of the news text; 2) the constraints of the medium; and 3) the "discourse relationship" between the broadcast announcer and an unseen interlocutor. The following diagram shows how these factors interrelate.

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                          1. text structure
                        ↗                   ↖
  2. medium constraints             3. unseen interlocutor
                        ↘    ↓      ↙
                          prosody
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The **text structure**, besides responding to requirements of the medium and the unseen interlocutor, derives from the main goals of the broadcast: to convey newsworthiness and to locate and maintain attention. The story is constructed to maximize impact. It is written to enhance clarity, because clarity is necessary to maintain audience attention. A listener has only one chance to hear the story, and following certain rules will ensure greater listener interest and retention. One journalism textbook states the obvious: "Radio information is...fleeting—in one ear and out the other" (Newsom and Wollert 1988:7).

The authors note that semantically uncomplicated sentences containing one or two points of information are part of the formula. Journalism students are actually taught to keep the story conversational ("broadcast news is written for the ear") but clear of the false starts of conversation; to keep sentences short; to keep copy informal and personal, including use of the second person; and to use "natural" language — that is, vocabulary and phrasing that would be found in spoken discourse, and not necessarily in literary texts (cf. Newsom and Wollert).

The announcer's task of presenting the text is always guided by the conscious awareness of the **unseen interlocutor**. The radio news announcer in his or her discourse relationship with the listener must meet three objectives which are fairly easy to achieve visually in print, but which the broadcast **medium** challenges: That is, make explicit

where a story begins and ends; make obvious the meaning of the story; and make sure that attention is gained and sustained. These objectives are met in large part by vocal technique; the speaker makes use of every communicative means at his or her disposal. Additionally, these requirements may, according to Quirk, "engender medium-specific conventions of presentation with their own linguistic correlates" (Quirk 1982:87), which would aid in the comprehension of the news by the listener/unseen interlocutor. Related to this is "newsworthiness", also a key concept to the news practitioner; ideally each story should be worth getting excited about, and this excitement will be reflected prosodically. This factor is always defined in relation to the listener: what's pertinent to the listener? what would get the listener's attention?

With prosody as the usual currency of exchange, the fine line between professional credibility, which most practitioners equate with dispassionate objectivity, and personal connection within the discourse relationship, which is also an explicit goal within the profession, is always being negotiated in a news broadcast. The data below suggest that professionalism may be equated with formality in the minds of non-professionals, and certain features of formal discourse modes are indeed present in broadcast prosody.

The prosodic requirements of the job are acknowledged in the profession, but never made particularly explicit. Wynn 1974 says, "In delivery the newscaster should communicate quiet vitality, warmth, ease and authority", and when this fails to happen, there is danger of "failure to communicate the meaning of the news" (Wynn 1974:177). Budding newscasters learn primarily by example, and are encouraged to listen to the professionals to internalize a standard. This appears to be fairly effective; a practitioner's awareness of the components of the news does appear to alter prosody. For instance, we'll see in the following section that the trained volunteer's prosodic patterns in the sample more closely approximated the professional broadcaster than did the untrained volunteer's.

4. The data
For my sample, I took two stories (A and B) from Bolinger's KQED prosodic log of July 14, 1988. These are public radio broadcasts, from the news program "All Things Considered", which tend to have more moderate pitch fluctuations than commercial radio. The other stories (C and D) are from national broadcasts on commercial AM stations.

From these I transcribed newscripts, which were read by two
volunteers who were instructed to read them first in a very neutral,
unexcited manner, and second in their "best newscaster's voice". These
were recorded at the University of California's language lab studio.
Speaker 1 was a graduate student in broadcast journalism at Berkeley;
she had had some experience announcing for the campus radio station.
She was recommended by a journalism professor as someone who
could competently read the news. Speaker 2 had no journalism nor
announcing background. He is an amateur musician with a good ear,
which is why I considered him to be a suitable volunteer.

I made prosodic markings of the version from the original radio
broadcasts, and then of the "neutral" and "newsy" readings of the
volunteers — five in all. It was of course not possible to get a neutral
reading from the speakers in the aired newscasts, but I included the
radio version because I think it furnishes a useful yardstick to measure
the prosodic behaviors of the other speakers.

I marked the transcripts for salient accents and pause, and timed each
broadcast story; the counter-numbers give a good sense of relative
duration. I also indicated intonation contours, which I will not describe
in detail in this paper. I believe there is enough data here to establish
the **relative** differences among the speakers in my sample and to show
meaningful distinctions. The chart (2) below shows the relative
differences along the lines of four parameters: timing (counts); pauses
overall; non-grammatical pauses; and pitches.

(I have included in Appendix A the transcript of Story A that was used
by the volunteer speakers.)

(2)

Story	Radio	Spkr 1 neut	newsy	Spkr 2 neut	newsy
(A)					
Counts	7	8	9	8	8.5
Pauses	14	12	12	14	12
Non-gram	4	0	1	4	1
Pitches	25	10	24	15	20
(B)					
Counts	6.5	6.5	7	7	7.5
Pauses	12	9	12	12	12
Non-gram	4	2	4	4	0
Pitches	19	9	21	12	18
(C)					
Counts	7.5	8	9	7	8.5
Pauses	7	9	10	8	10
Non-gram	1	0	1	1	0
Pitches	20	11	17	13	15
(D)					
Counts	6.5	7.5	9	9.5	10
Pauses	10	10	13	17	14
Non-gram	1	0	2	5	2
Pitches	26	12	22	14	17

A comparison of the parameters shows interesting differences and similarities:

<u>Counts (time or tempo)</u>: Roughly the same throughout, as you can see by looking at the first line for each story (A through D) on the chart. Radio was shortest, and the neutral counts were shorter compared to the newsy versions of the individual speakers, I think because both were being more careful when reading for a specific register than for neutrality. They also knew I was examining some element of news style, which would engender more carefulness.

<u>Pauses</u>: There were many more pauses at grammatical junctures than within a grammatical unit, as the numbers make clear — in keeping with a planned oral reading. An example from Story B: *"In Boston//Michael Dukakis//has scheduled a news conference"* (in which "//" indicates a pause). All three newsy versions are in fairly close agreement in terms of pause frequency. There was a closer correlation for the number of non-grammatical pauses between Radio and Speaker 1 than for Speaker 2, possibly because Speaker 1 has been

specifically trained for this sort of reading, and has experience with similar texts. There were somewhat more pauses overall in the newsy versions, compared to the neutral ones, which may suggest that these pauses were used for the functional effect of attention-getting (as other researchers have demonstrated).

Speaker 1, the experienced volunteer, has more non-grammatical pauses in the newsy reading; Speaker 2 has fewer. Paradoxically, I think this occurs for the same reason: When asked to speak in their "best newscaster's voice", Speaker 1 inserts the prosodic artifacts of her training (the injunction to be familiar or conversational), while Speaker 2 feels he has to put on a professional attitude while reading (and use prosodic markers that indicate "professionalism"), which increases a sense of formality.

<u>Pitches:</u> Pitch salience (by this I am referring to the subjective identifiability of an accent of emphasis on particular syllables, which is based on pitch obtrusion) is by far the most marked characteristic of the newsy and Radio versions. It is not so much that news stories contain **more** accents, they just contain more **salient** or identifiable accents. In my examination of the data, it was easier to determine "salient accent" in the Radio version, possibly because pitch movements seemed "wider" or more "pronounced".

Speaker 2 shows the least remarkable increase in salient accents, possibly because his grasp of "news style" is more from a listener's perspective than a practitioner's. That he is able to generate as many as he does, however, points to the significance of salient pitch as a characteristic of broadcast prosody.

Proficiency, or professional fluency, seems to be another key factor; if we take Speaker 2 to be out of his element, then his fatigue as he proceeded (noted by the trained studio technician) would be evidenced in less control of his medium, that is, more accents for a neutral instruction, fewer for newsy. That Speaker 1's newsy version was fairly close to the Radio's indicates that familiarity with the medium (whether it's text construction, awareness of "newsworthiness", or practice reading on air) helps her simulate what the professionals do.

Fluency may be a factor in more than just pitch control. The Radio version had a more pronounced falling contour at the end of a story, with the other near-terminal falls within the story offering some unification of text. The Radio version also had more evidence of

subjective rhythmic isochrony (from Story A:"*ONly if NAto scraps ITS plans*"), which can be perceived as more controlled. Carlos Gussenhoven (p.c.) has suggested that this can also be viewed as an alternate, more user-competent interpretation of what Bolinger has termed "misplaced accents", or accents on given or semantically less-important information. In this instance, a rhythmic analysis covers more ground than an accentual one.

I will also note in passing that voice quality was different in the neutral and newsy readings of the volunteer speakers. In the neutral cases, both speakers' relative pitch levels were lower.

5. Summary and conclusion
To summarize, keeping in mind our consideration of Levin's work as outlined in the chart (1) at the beginning of this paper, **pauses** have been found to occur more frequently within grammatical units in spontaneous speech and at the ends of grammatical units in planned speech. In our newscast sample, pauses followed the grammatical divisions typical of planned speech, but two of three newsy readings, particularly the Radio version, did contain pauses one would tend to find in told, and not read, speech. Furthermore, it appeared to be a factor of controlled production, and not reading miscues. Levin has also observed that pauses and silences are used functionally in both read and told stories. In the news context, they signal breaks between stories, and, in tandem with intonation contour, prosodically tie together elements of the story.

Levin has determined that **speech rate** is faster during reading. Since there were no told news stories, there is no real point of comparison. But we see (in the data chart 2) that the professionally read news version took the least time (as time competes with other factors of presentation in the production of radio, and speed would be a measure of skill).

Levin has observed that **intonation contours** follow punctuation in read stories, with falls at commas and periods, but serve a different discourse function in told stories, with rises "tying together" the narrative elements in told stories. It seems in our sample the announcers used what they could to give an aural coherence to their message. Initially, I had not intended to note this parameter, and I already built certain prosodic cues (commas, etc.) in the transcript I furnished to the two volunteer readers. Despite that, there are instances of the more conversational non-terminal contours as well as

an adjustment to the written, punctuation-cued form. The Radio announcer did a better job of employing tying-together contours, but this seems a matter of his vocal control. He also employed a device of spontaneous, informal discourse, a lengthening effect which Levin refers to as a "drawl", as in these examples from the data: *"a m:ixed blessing"* from Story C; and *"Soviet fighter pla:nes"* from Story A.

It appears that news prosody makes use of rate of delivery, pause, pitch movement, and other paralinguistic features in an identifiable way. Some of these features are the province of spontaneous discourse, and some derive from oral reading or the requirements of public discourse, such as acting. This allows an announcer to be simultaneously professionally distant and conversationally connected to the unseen listener, and to override the limitations of the medium. Along with pitch prominence, the **control** of these features seems most relevant, and it would be useful to determine a way to productively measure the intersection of control with prosody, to fully inform what comprises broadcast news. (Perhaps the best analogy is to a singing lesson. Singers are taught to use their voices in a certain manner, to achieve certain effects. Similarly, news announcers are taught to use their voices to achieve certain effects, predicated on what they know about the news and about the presentation of the news.) What Bolinger has termed "prosodic blunders" may be better viewed as "prosodic conventions" in newscasting, which are dictated by the structure of the news and the tasks of the news presenter.

Appendix A

Soviet leader Mikhail Gorbachev is offering to reduce the number of Soviet fighter planes in Eastern Europe. He made the offer yesterday in a speech to the Polish parliament. Gorbachev said his offer to reduce the number of Soviet fighter planes is good only if NATO scraps its plans to redeploy 70 American fighters from Spain to Italy. The Soviet leader has attempted to take the initiative on reducing conventional arms in Europe but most of the reactions to his offer yesterday were fairly negative. State Department officials say if the offer is serious it should be made in Vienna where a new forum for conventional arms control talks between East and West is being prepared.

Acknowledgements

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