

“Allegations” and “Controversy”: Are the Americans Invading our Intonational Space?

Author

Jenny Price
PhD Student
Linguistics Program
Monash University
Victoria 3800

jjpri1@student.monash.edu

Abstract

Newsreaders' speech, like all spoken language, is subject to change over time. Anecdotal evidence suggests there has been a shift in recent years in Australian television and radio news towards a more conversational style of presentation. Of particular interest in this regard is the speech of female commercial FM radio newsreaders, whose lexicon and rising intonational tunes most closely resemble those of their listener 'demographic'. Despite the claim by Sussex (1989) that Australian intonation patterns have remained immune to American influence, closer inspection of the rising tunes employed by FM news presenters would suggest there may be an increasing influence of American English on Australian journalistic style.

This paper will present initial findings of the synchronic aspect of a larger study looking at changes that have occurred in Australian news broadcast speech since the 1940s. Preliminary auditory and instrumental analysis of intonational tunes produced by two female newsreaders (one Australian, one American) suggests there is a distinctive similarity between their overall intonational inventories. Examination of their intonational phrase-final rising tunes in particular indicated that very similar tune types were being selected for the same broad functions within news discourse, and a comparison of two longer stretches of speech revealed each speaker to be using a combination of phrasing, downstep and pitch manipulation to produce highly stylized utterances displaying remarkable auditory similarity

Keywords

Intonation, rising tunes, HRTs, American influence, newsreading, news discourse, style, accentuation, pitch, tune function.

Introduction

The influence of American culture can be heard in the speech of Australians when we say we feel *totally fine* about something, or when we advise someone to *do the math*. This can only have come about as a result of intensive, repeated exposure to the American voice through popular culture (music, films, television and even the Internet). Sussex 1995:3 claims Americanisms are 'strongly represented in the communicative vocabulary of everyday Australian English', citing *No way, OK, Great!* and *You're kidding* as examples. But as yet there appears to have been no suggestion that American English intonation patterns are being imported into Australian speech. Indeed, Sussex 1989:159 states 'Intonation, rhythm, tessitura, vowel quality – all these remain apparently immune to North American infiltration'. At the same time he notes that Australian English has a 'natural tendency...to imitate dynamic, creative, prestige cultures' 1995:3.

Trudgill makes similar observations about British English, but also explains that 'the electronic media are not very instrumental in the diffusion of linguistic innovations' because of the lack of essential 'face-to-face contact' required for permanent accommodation to take place 1986:40. Yet more than ever before, the highly competitive electronic media are pushed to find an advantage over their rivals, and commercial FM radio stations (all vying for the 25-39 year-old 'demographic') have a tendency not only to reflect the speech of their listeners, but also to come up with innovative language that appeals to them. Certainly for some years now the general trend in both AM and FM radio has been towards a more informal (i.e. 'conversational') broadcasting style. Newsreading, as part of broadcasting, has been subject to these same influences and is the prism through which the current pilot study examines the possibility that innovative language behaviour in Australian commercial FM radio may be echoing certain intonation patterns which can be identified in the speech of American newsreaders.

With the emphasis on station identity, and the growing celebrity status of radio personalities, FM news has moved much further towards a conversational style than its AM counterpart with, in some instances, an interactive format allowing programme hosts to comment directly on the news content during the bulletin. Indeed, the FM news directors who were interviewed as part of a broader study confirmed the need for a 'seamless' transition between programme and news formats. It is in FM news that we observe the greatest departure from the more 'serious' and impartial style of news delivery which continues to characterize the mainstream AM stations, at least in Melbourne. The AM style (which derives from the original BBC English model) does not include utterance-final rising tunes, and is characterized principally by continuative utterance-medial low rises, and utterance-final falling tunes suggesting completeness and finality (see Pierrehumbert and Hirschberg 1990).

What distinguishes radio news from other forms of spoken discourse is that it must be conversational in style while for the most part not constituting an actual dialogue. It is in effect a one-way conversation between a newsreader and an imaginary interlocutor. In comparison with the Australian AM style, commercial FM news is notable for its broad pitch range (especially in female speakers) and the variety of rising tunes it

employs. In spontaneous speech a syntactically declarative utterance which is terminated with the same rising tune normally associated with questioning has been labelled a ‘statement high rise’ or a ‘high rising terminal’ (HRT), and interpreted as either a floor-holding device (see Horvath 1985 and Guy *et al.* 1986) or as simply indicating there is more information to follow (see Pierrehumbert & Hirschberg 1990). HRTs have been extensively studied by researchers including Allan 1984, Horvath 1985, Guy & Vonwiller 1989; 1984, Fletcher & Harrington 1620 and Fletcher *et al.* 1620. The increasingly conversational and informal Australian broadcast style has no doubt facilitated the transfer of the HRT from spontaneous speech into the more youth-oriented FM news genre in particular. For example, currently it is common for FM newsreaders to terminate a sentence or a news item with continuative rising tunes including HRTs rather than a falling tune, resulting in a ‘list’ effect.

Standard Southern British English, General American English and Australian English are considered to have very similar intonational inventories, but different tune configurations may be employed by different varieties for the same purpose, an example being variation in the intonational contour of questions. Since there would currently appear to be anecdotal evidence but no quantitative study of ‘Americanized’ intonation in Australian speech, the overall aim of the present study is to determine whether tune types similar to those of American news can be identified in Australian FM news. The primary aim is to look at a distribution of tune types within their respective intonational systems, a particular focus being rising tunes and their associated functions. A secondary aim is to look at whether the ‘American sound’ may be associated with the sum of the intonational elements comprising utterances, rather than the phrase-final tunes alone. Given that this study was limited to the speech of only two speakers, it can only be considered as a pilot.

Methodology

Two female newsreaders were selected (one Australian and one American), who were perceived to frequently use a variety of rising tunes in their read speech. The Australian speaker, aged in her early thirties, was from a mainstream Melbourne commercial FM radio station, and the American (age unknown) was from a popular mainstream commercial AM radio station in Boston. Although it was hoped to obtain data from a similarly positioned American FM station for comparison, this proved too difficult to access over the Internet at the time the data was collected. The Melbourne station broadcasts hourly 3-minute bulletins including news, sport and weather information, whereas the Boston station has a continuous format where news, sport, financial, traffic, weather and other types of information are read by different speakers in rotation, with updates as they come to hand. Both stations apparently rely on advertising for revenue, with sponsors’ names woven into the bulletins at various points. Five minutes of newsreading was recorded for each speaker. The Australian material was recorded to audio cassette and subsequently digitized at a sampling rate of 44,100kHz using Sonic Foundry Sound Forge version 6.0 software, and the American speaker was recorded over the Internet, also at 44,100kHz, using ‘Audacity’ software.

A speech database was created using EMU software tools Cassidy and Harrington 2001. The data was firstly segmented into news story ‘chunks’ of a maximum of 20 seconds per file. Where possible there was one file per story, but occasionally longer stories in the American corpus necessitated splitting them into two files. The four-tier EMU template allowed the labelling of intonational and intermediate phrases, individual words, tonal events (pitch accents, phrase accents and boundary tones) and intonational phrase-final contour types.

The intonational transcription system that has been used in phonetic studies on Australian English in recent years is the Tones and Break Indices (ToBI) annotation model Beckman and Ayers-Elam 1994/1997, an autosegmental-metrical intonational framework which derives from Pierrehumbert’s 1980 American English transcription system. The ToBI model represents intonational melodies in terms of low and high tones which are linked to three different kinds of intonation events: pitch accents, phrase accents and boundary tones. Tones were labelled in accordance with the ToBI conventions for Australian English (see Table 1).

Intonation events	Pitch description	AuE ToBI
Pitch accents	Simple high	H*
	simple low	L*
	rising	L+H*
	‘scooped’	L*+H
	downstepped high	!H*
	downstepped rising	L+!H*
	downstepped ‘scooped’	L*+!H
	downstepped falling	H+!H*
Phrase accents	high	H-
	low	L-
	downstepped high	!H-
	rising	L+H*
	‘scooped’	L*+H
	downstepped high	!H*
	downstepped rising	L+!H*

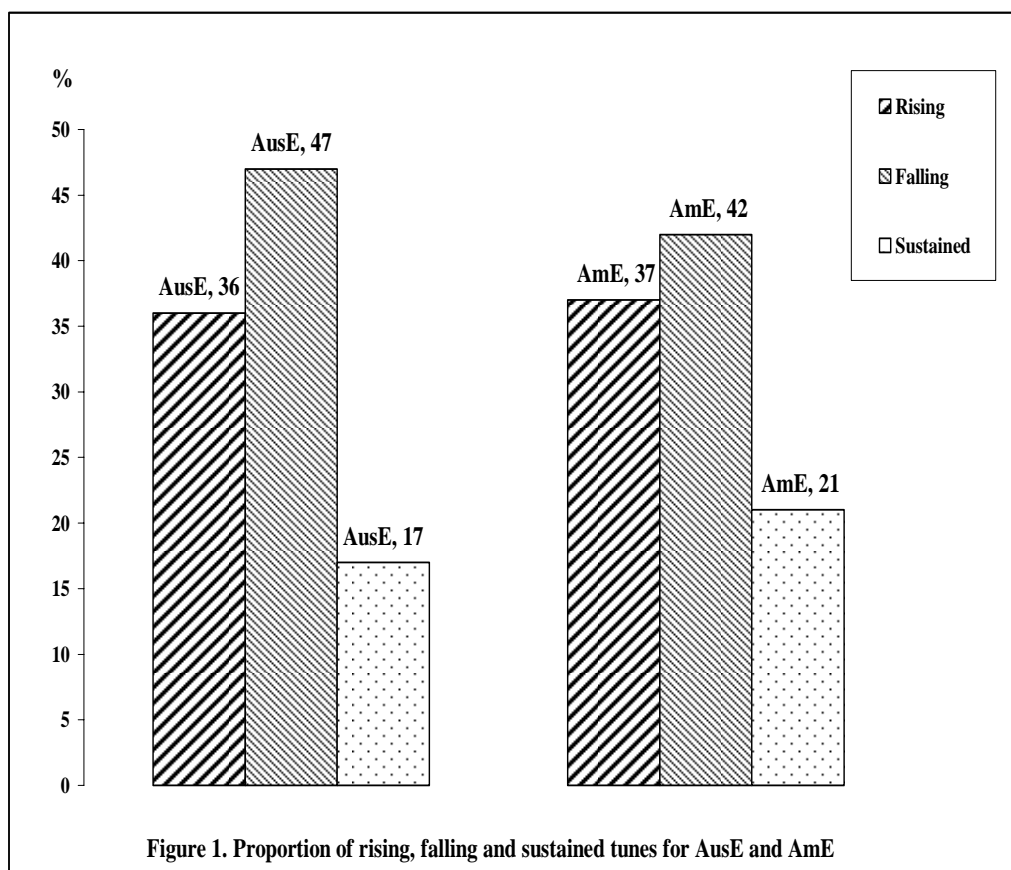
Table 1. Tonal inventory of Australian English (AuE) ToBI (from Fletcher & Harrington 2001)

The three contour types of interest were rises, falls and sustained tones. The first set of rising tones examined included high rises with high-pitch onset (labelled H*H-H% in the tones tier and HOHR in the contour tier), high rises with low-pitch onset (labelled L*H-H% and LOHR), mid-level rises with low-pitch onset (labelled L*L-H% and LOR), and high-level rises with high-pitch onset but which did not reach an end point quite as high as the H*H-H% tones (labelled as H*!H-H% and HOR respectively). It should be noted that since they are declarative statement high rises, low-onset high rise (LOHR) and high-onset high rise (HOHR) tones are in fact HRTs. However in contrast to HRTs in spontaneous speech, low and high-onset rise tones in FM newsreading also appear to have a particularly important stylistic function (see the Results section).

The second set of rising tones was the fall-rise. These included simple fall-rises and ‘split’ fall-rises (labelled as FR and SFR respectively in the contour tier and as H*L-H%

in the tones tier), and rise-fall-rises which were realized low or high in the pitch range (labelled as RFR and HRFR in the contour tier and L+H*L-H% in the tones tier). Intonational phrases with a final rising boundary where the nuclear accent was realized early were labelled variously in the tones tier according to the pitch accent type and the extent of the final rise, and as ‘long rising tails’ or LRT in the contour tier.

The falling tunes included utterance-medial falls (F) and utterance-final falls (FF), low final falls (LFF) which were realized low in the speaker’s pitch range and labelled as L*L-L%, and the simple rise-fall (RF) and ‘split’ rise-fall (SRF), both labelled as L+H*L-L%. The mid-level and high-level sustained tunes (ML and HL) all had either !H-L% or H-L% boundary tones. The numbers of each intonational phrase-final type were extracted for each corpus using the ‘R’ statistical analysis package which interfaces with the EMU software tools.



AusE Corpus		AmE Corpus	
Rises		Rises	
HOHR	7	HOHR	14
LOHR	23	LOHR	2
LOR	7	LOR	7
HOR	0	HOR	9
RFR	10	RFR	10
HRFR	2	HRFR	3
FR	9	FR	10
SFR	5	SFR	8
LRT	0	LRT	6
TOTAL	63	TOTAL	69
Falls		Falls	
F	21	F	19
FF	11	FF	23
LFF	11	LFF	8
RF	38	RF	26
SRF	1	SRF	2
TOTAL	82	TOTAL	78
Sustained		Sustained	
HL	18	HL	33
ML	11	ML	7
TOTAL	29	TOTAL	40
FINAL TOTAL	174	FINAL TOTAL	187

Table 2. Distribution of intonational phrase-final tunes for AusE and AmE corpora.

Results

The total number of intonational phrase-final tunes was 174 for the Australian corpus and 187 for the American corpus. The results showing the proportion of rises, falls and sustained tunes for each corpus are presented in figure 1, and the distribution of each tune type is presented in table 2. It should firstly be noted that the proportions of rising tunes are almost identical in the two corpora (i.e. 36% in the Australian corpus and 37% in the American corpus). The proportions of falling and sustained tunes were also quite similar (47% to 42%, and 17% to 21% respectively). Given the variety and auditory distinctiveness of the rising tunes, the analyses in this study will be limited to these contours only.

In several of the contour categories the numbers of rising tunes are very similar if not identical for both corpora (for example there is the same number of rise-fall-rises and low-onset rises). The corpora differ firstly in that there are no high-onset rises or long rising tails in the Australian data. Secondly, the preponderance of high-onset and low-onset high rises is reversed in each corpus. While there are only 2 low-onset high rises in the American corpus, there are 23 in the Australian corpus, and where there are 14 high-onset rises in the American data there are only 7 in the Australian material. When the other rising tunes were examined to determine whether they were initiated with a H* or L* pitch accent and added to the number of high-onset and low-onset high rises, it was found that of the 64 rising tunes in the Australian corpus 23 started high in the speaker’s range with a H* pitch accent and 31 started low, with a L* pitch accent. In the

American corpus, of 69 rising tunes the same investigation yielded 41 starting with a H* and 15 with a L* accent. In each instance the rise-fall-rise tunes were excluded because they did not initiate with either a H* or L* accent, but the high-range rise-fall-rises were included because the entire contour was realized high in the speaker’s pitch range. Clearly these speakers are making similar tune type selections and producing almost the same number of rises, but at times they are realizing them in a different part of their pitch range.

Phrase-final tune interpretation

In this section an informal analysis will be undertaken into the broad functions these rising tunes seem to be fulfilling within the newsreading context, beginning with the high-onset high rises. Of the 7 Australian instances of high-onset high rise, 4 of them are used in what might be termed a ‘stylistic’ capacity to introduce a new topic, i.e. the sport or weather information, for example *checking Melbourne skies* (see figure 2), but their primary function remains nevertheless continuative (i.e. they indicate that further information is to follow). Similar use of high-onset high rise seems to be made in the American corpus (see figure 3 for a comparable example of a weather reference), but the majority (10 out of 14) are continuative. Indeed, only one example of high-onset high rise in the American corpus occurs in sentence-final position.

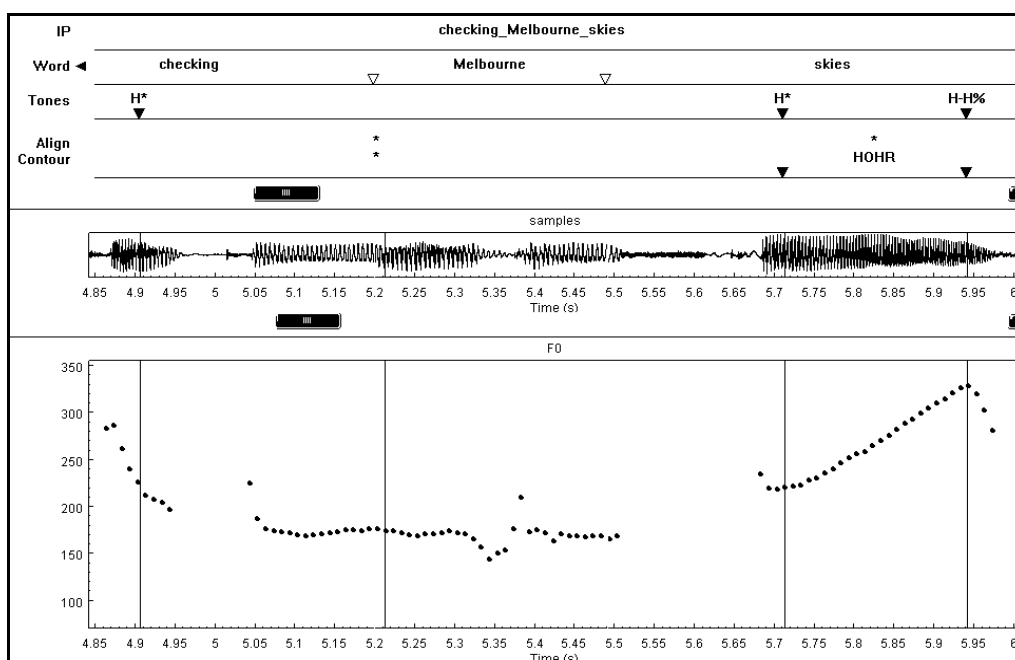


Fig. 2. The F0 contour of the high-onset high rise tune in the phrase *checking Melbourne skies* produced by the Australian speaker, using the ToBI label H*H-H%.

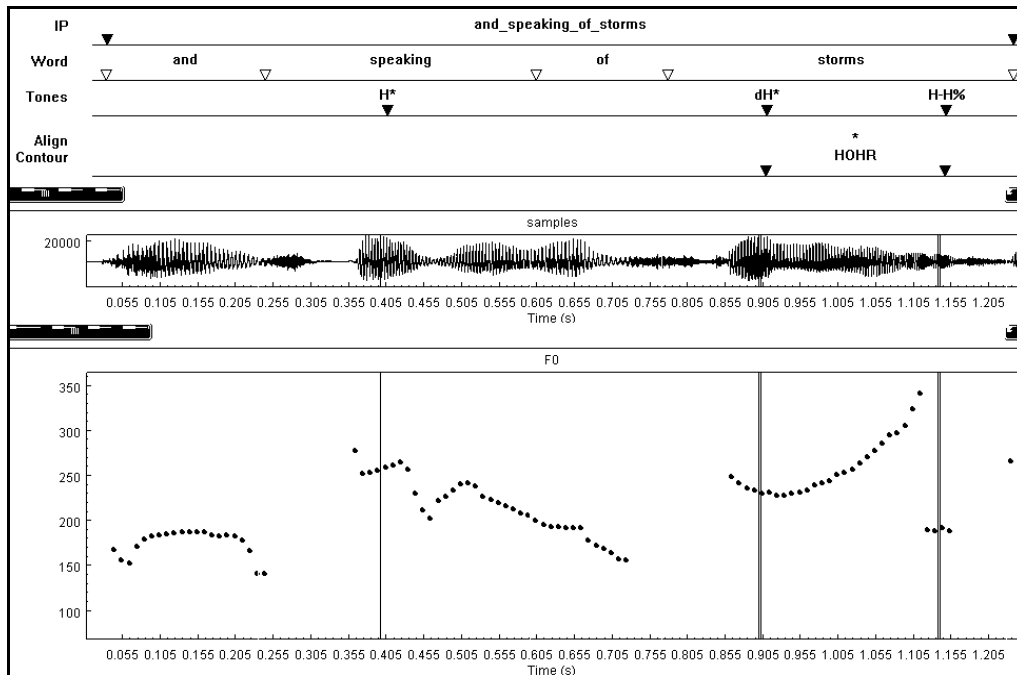


Fig. 3. The F0 contour of the high-onset high rise tune in the phrase *and speaking of storms* produced by the American speaker (note the usual ToBI !H* convention indicating downstep cannot be used in EMU, which explains the use of dH* here).

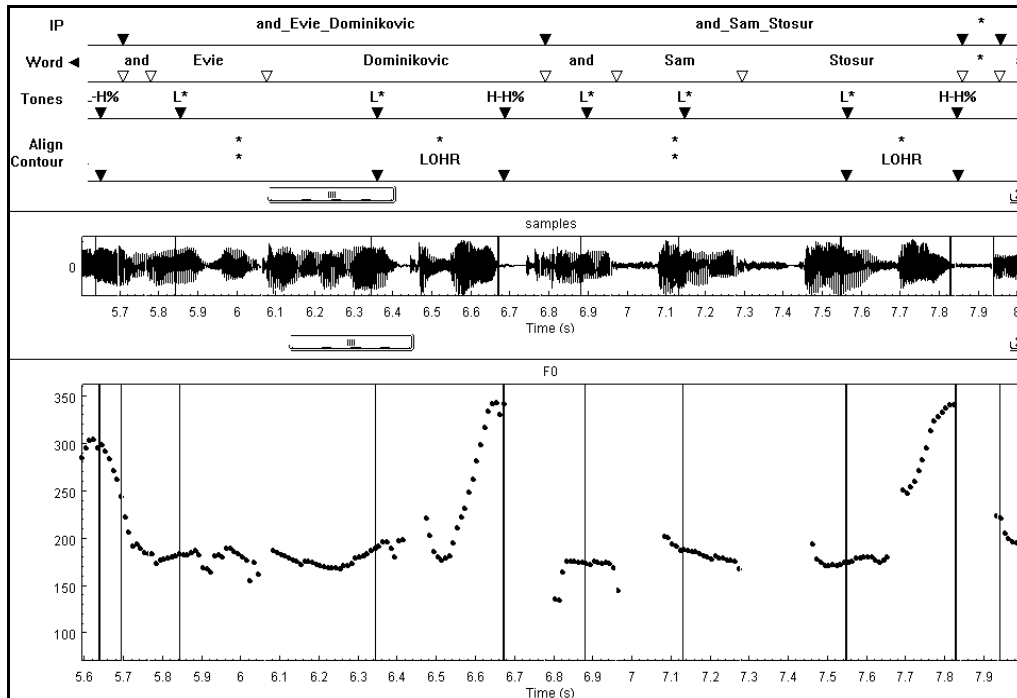


Fig. 4. The F0 contour showing two low-onset high rise tunes with a continuative function in the phrases *and Evie Dominikovic* and *and Sam Stosur* produced by the Australian speaker, using the ToBI label L*H-H%.

When the 23 Australian low-onset high rises are examined, all appear to have a continuative function (see figure 4). Sixteen are used utterance-medially and seven are sentence-final. Like the Australian high-onset high rises, some low-onset high rises are employed in utterances which seem to be ‘formulaic’, such as those which include the sponsor’s name or which conclude the introductory phrases used for sporting information. There were only 2 instances of low-onset high rise in the American corpus, one of which was sentence-final. Pierrehumbert and Hirschberg 1990:290 list the American English H*H-H% configuration as a ‘high-rise question’ that may simultaneously convey information, a definition which has elements in common with that of the statement high rise L*H-H% tune in Australian English. Pierrehumbert and Hirschberg describe the American L*H-H% contour as appearing in ‘canonical yes-no questions’ (p292) but do not suggest it can convey information in the same way as H*H-H%. This may explain the low incidence of low-onset high rise in the American corpus of this study. On the other hand Fletcher and Harrington 1620:224 found that almost all speakers in their corpus ‘were making a systematic choice to use a “low-onset” high-rising tune with a declarative and a “high-onset” high-rising tune with a yes/no question.’ Thus the roles of high-onset and low-onset high rising tunes in Australian English can be seen as reversed compared to American speech. In the artificially interactive news genre neither tune is used for questioning, but in the present study both are used by both speakers to make declarative statements. The results of this analysis show that the American speaker uses the high-onset high rise most frequently for this purpose, whereas the Australian uses the low-onset high rise.

Further examination of the fall-rise, split fall-rise and low-onset rise tunes in both corpora (plus the high-onset rise tunes in the American corpus) revealed their function to be almost exclusively continuative. The rise-fall-rise tunes, however, require a more detailed analysis and explanation. In their compositional approach to tune interpretation Pierrehumbert and Hirschberg 1990 demonstrate that pitch accents, phrase accents and boundary tones each make their own distinct contribution to the way in which a tune is interpreted. Pitch accents ‘convey information about the status of the individual discourse referents, modifiers, predicates, and relationships specified by the lexical items with which the accents are associated’ (p286), while boundary tones communicate information about whether they are linked to successive intonational phrases (i.e. whether the phrasal function is continuative).

In addition, differences of text-tune alignment can significantly influence the interpretation of meaning, and this is particularly true of rise-fall-rises characterized by L*+H or L+H* tones, and H% phrase boundary tones. The precise location of the pitch accent/word alignment, together with a L% or H% boundary tone, can produce either an emphatic/assertive or suggestive meaning (see Venditti 2002; Fletcher 2004). Fletcher *et al.* 1620 note their impressionistic interpretation of the expanded range fall-rise as a means of emphasizing a point rather than questioning it. The majority of the rise-fall-rise accents in the present study contain L+H* tones, which all appear to be used stylistically to create additional interest and emphasis within the utterance (see the word *world* in figure 5 for an example), and their H% boundary tones convey the idea that there is more information to follow.

Fletcher and Harrington 1620 note the limited number of rise-fall-rise tunes produced by speakers in their corpus (30 tunes from 5 speakers) as compared with other rising tunes. It is perhaps not surprising that the Australian and American speaker in the present study produced 10 rise-fall-rises each and almost equal numbers of high-range rise-fall-rises (2 and 3 respectively) when the findings of Johns-Lewis 1986:216-7 are taken into consideration. In research looking at pitch differences in the discourse modes of acting, reading aloud and conversation she found that ‘the mean pitch value for conversation was significantly lower than reading aloud, and lower for reading aloud than acting’. Johns-Lewis explains the need for actors to compensate for audience non-participation and corresponding ‘mental fatigue’ by ‘heightening the strength of the stimulus’, and suggests that pitch heightening is a listener-oriented action that has the effect of ‘focusing and maintaining attention’. A radio audience could be described as even more passive than a theatre audience (or than a group of listeners party to reading aloud), given the dislocation between speaker and listeners. Thus it could be said that the use of rise-fall-rise tunes (and indeed other rising tunes such as the low or high-onset high rise) by the newsreaders in the current study might be a stylistic device they employ to keep the listeners interested.

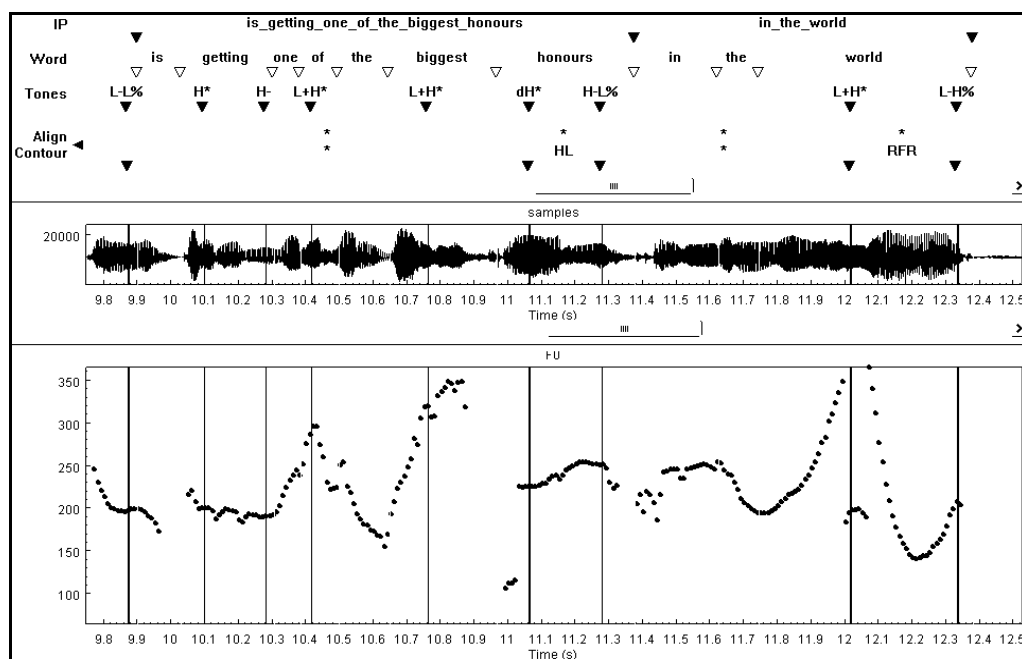


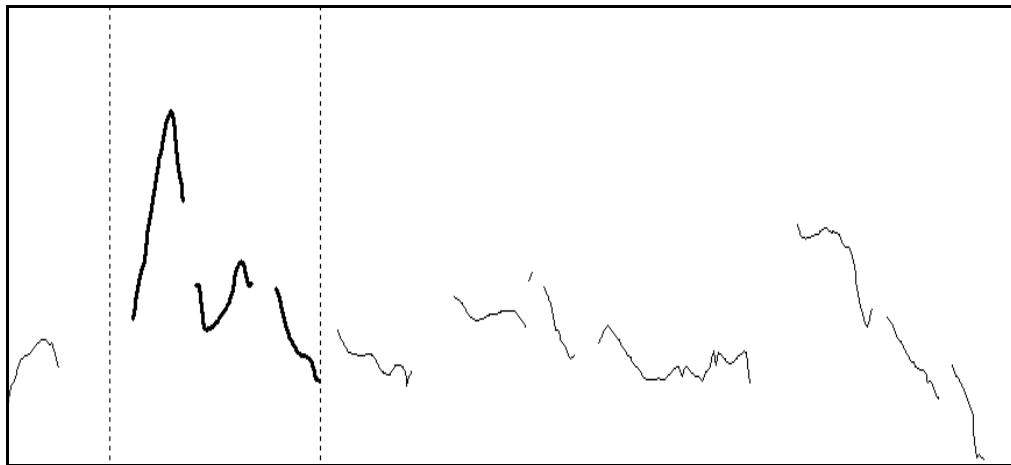
Fig. 5. The F0 contour showing a rise-fall-rise tune realized on the word *world* produced by the American speaker, using the ToBI label L+H*L-H% (note the ‘pitch-halving’ effect at the highest point of the rise due to the high frequency of the speaker’s voice at this point).

A broader perspective

Overall it can be seen that both speakers draw on a very similar inventory of phrase-final intonational tune types, but does this mean that Australian FM newsreading is

beginning to sound American? It is well known that ToBI analyses of American English and Australian English imply that there is a shared intonational inventory. It is possible that any ‘Americanization’ of Australian FM news speech, if such is the case, might not be located in the phrase-final tunes alone, but rather in the sum of its components. With this in mind, the elements of one utterance from each corpus will be compared in the following brief analysis (presented in figures 6 and 7 below).

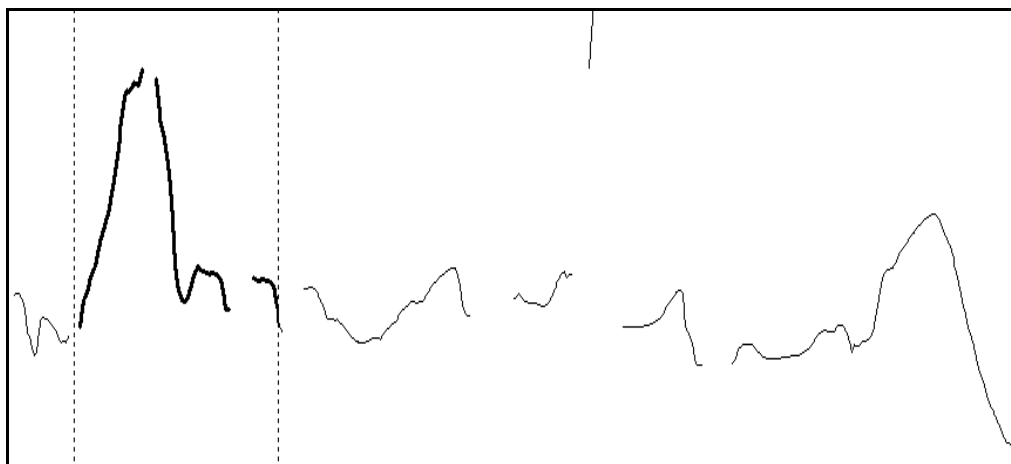
Fig. 6.



after alle - gations they were trying to bribe the a- ppeal judges
 L*+H L*+!H L- H* !H* L- H* L-L%

The F0 contour of an utterance produced by the Australian speaker. The ToBI transcription is shown beneath the text.

Fig. 7.



to the controversy surrounding his top aide Karl Rove
 L+H* !H* !H* H- H* !H* !H* L+H* L-L%

The F0 contour of part of the utterance *when it comes to the controversy surrounding his top aide Karl Rove*, produced by the American speaker. The ToBI transcription is shown beneath the text.

Early in each utterance (on the words *allegations* and *controversy*) there is a sharp rise in pitch to the highest part of each speaker’s range, followed by a second downstepped pitch accent within the same word. After a further slight fall the pitch is reset at approximately mid-level, from where it then continues to downstep (particularly in the American example) before rising again for the respective final H* and L+H* pitch accents, and falling to the lowest part of the speaker’s register at the final intonational phrase boundary. The phrase-final falls, while different in their realization (a rise-fall on a single word as opposed to a fall over two words), both rise from a point measuring approximately 200Hz in the speaker’s pitch range and reach a similar high point (307Hz for the Australian speaker and 320Hz for the American).

None of these individual features could be described as inherently ‘American’. The speakers are using the same intonational devices (sharp rise, downstep and prominent final fall), which together create a similar auditory impression. Such devices are highly stylized, and employed for informational focus. They are thus particularly useful for focusing listener attention in FM news discourse where bulletin length can be very short. It is important to note that the Australian speaker did not use them in her conversational speech during the interview held with her. Furthermore, they do not seem to be a feature of the Australian AM newsreading style, although this observation would need to be verified via the analysis of an equivalent AM corpus.

The question of whether Australian FM radio newsreaders have adopted features of American news discourse is beyond the scope of this study. The ‘global’ newsreading style which initiated in the US is characterized by the use of hyperaccentuation, many and varied phrase-final rising tunes and an exaggerated pitch range, resulting in the over-use of focal prominence (such as in the words *allegations* and *controversy*). These features are also part of ordinary Australian discourse, but in news they are more frequent and more extreme, no doubt because time is limited and competition for audience attention is fierce. Certainly Australia has been importing American radio and television formats including news and current affairs for years, exposing us to the increasingly informal newsreading style which comes with them, but whether we are in the process of ‘Americanizing’ news discourse is not clear.

Conclusion

As has been stated, the aim of the present study was to determine whether Australian FM news is using intonational tune types similar to those of American news. Firstly, since it has been shown that almost exactly the same proportion of intonational phrase-final tunes in each corpus are rises, and the proportions of falling and sustained tunes are very similar, it would seem that the two speakers investigated are employing shared elements between the two intonational systems. Secondly, the analysis of the rising tunes has shown that they can be decomposed into the same contour types in very similar if not identical numbers. Thirdly, it was ascertained that almost all rising tunes in both corpora had a continuative function, meaning that these speakers are very often selecting the same tune types for the same purpose in news discourse; although they are more often realized with high-pitch accent onset in the American corpus, as opposed to low-pitch accent onset in the Australian data. Finally, the analysis of two longer

stretches of speech demonstrated that the use of a similar combination of downstep and pitch manipulation by each speaker produced utterances displaying remarkable auditory similarity. It would seem then that these speakers’ overall newsreading styles are closely related. More targeted phonetic analyses of rising tunes and pitch range within a broader spectrum of Australian and American newsreading styles would be beneficial in terms of validating the contour-based findings of the current research.

Bibliography

- Allan, Keith. 1984. The component functions of the high rise terminal contour in Australian declarative sentences. *Australian Journal of Linguistics* 4: 19–32.
- Beaumont, Francis and John Fletcher. 1620. *Philaster, or Love Lies a-Bleeding*.
- Beckman, M. E. and G Ayers-Elam. 1994/1997. Guide to ToBI labelling - Version 3.0.
- Cassidy, S. and Jonathan Harrington. 2001. Multi-level annotation of speech: an overview of the Emu Speech Database Management System. *Speech Communication*.
- Guy, Gregory R., B. Horvath, Julia Vonwiller, E. Daisley, et al. 1986. An intonational change in progress in Australian English. *Language in Society* 15: 23-51.
- Guy, Gregory R. and Julia Vonwiller. 1989. The high rising tone in Australian English. In *Australian English: The Language of a New Society*, ed. by P Collins and D Blair. St Lucia: University of Queensland Press. Pp. 21-34.
- Guy, Gregory and Julia Vonwiller. 1984. The meaning of an intonation in Australian English. *Australian Journal of Linguistics* 4: 1–17.
- Horvath, Barbara. 1985. *Variation in Australian English*. Cambridge: Cambridge University Press.
- Johns-Lewis, Catherine, (ed.). 1986. *Intonation in Discourse*. Beckenham: Croom Helm.
- Pierrehumbert, J.B. 1980. *The Phonology and Phonetics of English Intonation*. PhD dissertation. Massachusetts Institute of Technology.
- Pierrehumbert, J.B. and J. Hirschberg. 1990. The Meaning of Intonational Contours in Discourse. In *Intentions in Communication*, ed. by P.R. Cohen, J. Morgan and M.E. Pollack. Cambridge, MA/London: The MIT Press. Pp. 271-311.
- Sussex, Roland. 1989. The Americanisation of Australian English: Prestige models in the media. In *Australian English: The Language of a New Society*, ed. by P Collins and D Blair. St Lucia: University of Queensland Press. Pp. 158-168.
- Sussex, Roland. 1995. Americanisms roll into Australian English. *Australian Style* (June): 2-3.
- Trudgill, Peter. 1986. *Dialects in Contact*. Oxford: Blackwell.
- Venditti, Jennifer. 2002. Intonational meaning in discourse. http://www1.cs.columbia.edu/~jjv/pubs/IRCSinton_tutWEB.ppt#402,12,Alignment