

# The emergence of the high rising terminal contour in the speech of New Zealand children<sup>1</sup>

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## Introduction

"When we go to Mexico we have to um speak English like the English people cause there's some English people there? that speak English?"

When my 4 year old informant said this to me she was not asking if English people that speak English live in Mexico, she was telling me that this is so. I have punctuated her sentence with question marks to indicate where her intonation rose as one would expect if she were asking questions, though the context makes it clear that she was not. "There's some English people there" and "that speak English" are both declarative clauses.

Her utterance illustrates the intonational feature known as the High Rising Terminal Contour (HRT), a feature which appears to be increasing in frequency in New Zealand English (Britain 1992:96). The feature has also been observed in Australia (Guy, Horvath, Vonwiller, Daisley and Rogers 1986), Canada (James, Mahut and Latkiewicz 1989) and the United States (Ching 1982).

Cruttenden (1986:134,135) describes the HRT as a "casual" feature and "typical of a number of teenage groups in Australia and America, for whom casualness is the 'in thing'". In his analysis of data from the Porirua social dialect survey (Holmes, Bell and Boyce 1991), Britain (1992) found the highest frequency of HRT use amongst young Maori men and women, and young Pakeha women. The HRT was not a prominent feature in the speech of young Pakeha men. Allan (1990:119) cites Kaiser *et al* (1987) as suggesting "that age is a factor in the occurrence of HRTs, with younger speakers more likely to use HRTs than older speakers."

To my knowledge no research has been undertaken on the use of HRTs amongst young children in New Zealand. Travelling home on the bus one evening in the company of several exuberant 9 - 10 year olds convinced me that the HRT was a well entrenched feature of their speech. I decided to check my impressions more thoroughly by devising a study to

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elicit HRTs in New Zealand children's speech, and to examine the age at which the feature begins to emerge in children's speech. The literature suggested that a number of variables needed to be taken into account including the age of the children, their gender, and the type of text that they were producing.

### Children's speech

The literature on the development of intonation in children's speech suggested that children as young as four might be able to produce HRTs. Firstly, it has been found that children in their second year produce a questioning intonation, similar from the outset in structure to adult questioning intonation (Tonkova-Yampol'skaya 1969:133). Secondly, Andersen (1992:17-18) cites Sachs *et al* (1976) as saying of caregivers of infant children that, "use of a *rising intonation contour* similar to that of questions in English (but not in conjunction with a question form) is fairly common in caretaker input." They suggest that the function of this rising question-like intonation "may be seeking confirmation, testing whether the utterance should be repeated." If it is true that infants are being exposed to HRTs by their caregivers, it seems likely that they might add them to their linguistic repertoires along with other input to which they are exposed at this stage.

The question remains as to when young children are likely to be socially sufficiently mature to know when and where to use HRTs systematically. There has been much debate in the literature on the function of HRTs in the language of English-speaking adults. The following functions have been postulated: uncertainty, deference (Lakoff 1975, Eckert 1989), interactional solidarity, i.e. checking for listener comprehension (Guy, Horvath, Vonwiller, Daisley and Rogers 1986), and positive politeness marking (Britain 1992 after the concept described by Brown and Levinson 1978). If any, or all, of the second, third and fourth postulated functions are plausible, a reasonable degree of social maturity would be required of speakers before they could competently produce HRTs. Speaker would need to be aware, at least to some degree, of their listeners' needs, and able to take account of these in their own production. If Piaget is to be believed this would be highly unlikely in a pre-schooler as:

he does not bother to note to whom he is speaking nor whether he is being listened to... the talk is egocentric, partly because the child speaks only about himself but chiefly because he does not attempt to place himself at the point of view of his hearer. Anyone who happens to be there will serve as an audience....he feels no desire to influence his hearer nor to tell him anything (1926:9).

More recent studies, however, indicate that children develop sociolinguistic awareness well before they start school. Keenan (1974)

## *High rising terminals in the speech of New Zealand children*

observed early morning conversations between twin boys aged 2;9 and found them able to sustain a coherent dialogue over a number of turns. Martlew, Connolly and McLeod (1976) and Andersen (1992) demonstrate the importance of role play as an important function in the development of a child's ability to communicate. If children are capable of acting out the roles of others, they are able to put themselves in the shoes of others and adapt their speech at least to some degree to their listeners' needs. The fact that quite young children will modify their speech to "baby talk" when speaking to babies (personal observation of my own children) is evidence that they do at least "bother to note to whom [they are] speaking" (Piaget as quoted above).

In summary: (1) Children possess the physical ability to produce HRTs from at least their second year; (2) it is possible that young children are being exposed to this linguistic feature from an early age; (3) it has been demonstrated that 4 year olds adopt different speech registers according to the roles they adopt in role playing games, indicating that they realise that other people are different from themselves and they must adapt their speech to their listener's needs. These facts suggested that 4 year olds might be capable of producing HRTs in appropriate contexts.

### **Gender**

Using the data from the Porirua social dialect survey, Britain (1992) found that young Pakeha women favour HRT use more than young Pakeha men. In Sydney, Horvath (1985) found that women in general used more HRTs than did men. Tannen (1990) summarises research demonstrating a number of significant gender differences in the sociolinguistic behaviour of boys and girls. Maltz and Borker (1982) claim that one of the things that girls typically learn to do with words, which boys do not to the same extent, is to create and maintain relationships of closeness and equality. This involves recognition of others' speech rights. Boys, on the other hand, must learn to assert themselves and their opinions, and in order to do this they acquire a much more competitive style of speech. Andersen (1992:43) cites Sachs, Lieberman and Erikson (1973) who observed that children "demonstrate appropriate sex-specific intonation patterns well before they have undergone the physiological changes that lead to voice pitch changes at puberty."

Given these patterns, it seems logical to suppose that there might also be gender differences in the frequency of children's use of HRTs. Given the interactive and positive politeness functions which have been suggested for HRTs (described above), the findings of Britain and Horvath, and given Maltz and Borker's observations about the gender roles which boys and girls are in the process of learning, it seems likely that girls will use more HRTs than boys.

### Text-type

Linguistic text type has also proved a significant variable with respect to the occurrence or non-occurrence of HRTs. Allan (1990), Britain (1992) and Guy and Vonwiller (1984) agree that HRTs are more frequent in 'narrative' text types than in other contexts. Text classified as 'opinion' is the least favourable context for HRTs, and 'explanatory' and 'descriptive' texts fall somewhere in between (Horvath 1985, Britain 1992). Allan (1990) found length of turn to be another significant factor, with single word turns producing fewest HRTs and multiple clause turns producing most. It seemed worth investigating whether children used HRTs in similar text types.

Children develop control of different speech styles at different ages (Foster 1990) and the number of potential sites for HRTs will presumably depend on the children's developmental maturity in the areas of text type and length of utterance. The development of narrative skills in young children has been the subject of several studies in recent years. Peterson and McCabe (1983), looking at children aged 3;6 and 9;6, found that the older children produced longer narratives than the younger children, and they provided more background information on the who, where and when of stories. Peterson (1990) undertook an 18 month longitudinal study of real-experience narratives produced by children aged 2 - 3;6 years. She elicited substantial numbers of narratives over this period. These varied in length according to how interested in the topic the children were, and how willing they were to talk on a particular day, but all were capable of producing extended narratives. In general, as they got older, the children's narratives became longer, one child producing a narrative 38 utterances long. Sachs (1983) found children able to refer to the immediate past and even the more distant past before 3 years of age. Peterson and Dodsworth (1991) found 2 year olds and 3 year olds could cohesively link sentences in narratives.

There appears to be little research on the development of explanatory and descriptive styles in the speech of young children, except as they apply to the who, where and when of narratives. These are minimally present in the speech of 3 year olds (Peterson 1990), and are considerably more developed in 9 year olds (Peterson and McCabe 1983).

Since it seems that narrative skills are present by age 4, it would appear possible that children of this age might use HRTs in such contexts and that 9 year olds with their longer, more complex stories, would be even more likely to produce them and in greater numbers.

My study therefore aimed to examine the development of the High Rising Terminal Contour in the speech of New Zealand middle class Pakeha children by comparing the frequency of usage of HRTs in the speech of 4 year old children and 9 year old children. Secondly, in order to ascertain whether there are any gender differences at these ages I determined to compare the speech of girls and boys. Thirdly, I decided to (a) compare the functions of HRTs in children's speech with those in

## *High rising terminals in the speech of New Zealand children*

adult speech and (b) examine the text-types in which HRTs occurred in children's speech.

### **Methodology**

#### **Subjects**

The data for my analysis were collected by means of semi-structured interviews with twenty children from two distinct age groups:

- (i) five 4 year old boys, four 4 year old girls and one 3 year old girl at the Victoria University Students' Creche;
- (ii) five 9 year old boys and five 9 year old girls, of whom four boys and four girls were at Karori West School, and one boy and one girl were attending Victoria University's school holiday programme.

I did not explicitly collect data on the parents of these children, but it seemed very likely that all of them came from middle class homes. The school is in a predominantly middle class suburb of Wellington, and the creche children are the children of university students who may not be financially well off, but who are self-evidently well educated. All children were Pakeha, i.e. of European descent, and had lived in New Zealand most, if not all, of their lives.

#### **Elicitation of data: the interview**

I interviewed each child separately. I started each recording session with a brief, unrecorded chat, introducing myself and talking a little about tape recorders. None of the children appeared to mind the prospect of being recorded and most were quite amused to hear themselves on tape when I played sections back to them.

I asked each child to tell me a story based on a series of pictures from a picture book about a mischievous cat. This was quite a difficult task for some of the 4 year olds, and in fact I often ended up telling them more of the story than they told me. The main purpose of this exercise, however, was to arouse the children's interest, to help them relax and to provide a focus for the following activities.

I then told the children a true story about my cat and an amusing encounter he had had with the police. My aim was to motivate the children to tell me stories and to encourage the narrative style of discourse which others have found to favour HRT use. This technique worked well for the 9 year olds, most of whom talked at reasonable length on topics of interest to them, particularly their pets. It proved very much more difficult to elicit stories from the 4 year olds.

I then sought to elicit an explanatory style of discourse, which had also been demonstrated to encourage HRT usage in adult speech, by asking the children to tell me how to play a game. The 4 year olds attempted to explain the rules of a game pre-selected by the creche supervisor as one

with which they should be familiar, and the 9 year olds told me how to play a game of their choice.

I put no time limits on the interviews, preferring to work through the above schedule of activities, giving the children the freedom to talk as much or as little as they liked. I prompted them with questions to stimulate further talk if I felt they might have more to say, and I tried to find topics with which they felt comfortable. My aim was to elicit speech that was as relaxed as possible, given the constraints of the situation, the presence of the tape recorder and the company of myself, an unfamiliar adult.

Ideally, it would have been preferable to have had someone else interview the children, someone who had no idea which feature of speech was to be analysed. In fact, I did not use HRTs in my conversation with the children so it could not be said that they were copying my speech style if they used HRTs. Possibly, it could be said that I might have influenced them to not use HRTs! As anyone who has undertaken interviews of this type will be aware, it is virtually impossible to monitor linguistic features of one's own speech closely, while encouraging the interviewee to talk.

I transcribed the sections of the interviews which were most fluent and connected. The 9 year olds' passages tended to be longer than the 4 year olds', as one might expect.

## Analysis

### Tone Groups

The texts were divided into tone groups, following Guy and Vonwiller (1984) and Britain (1992). The tone group is the countable unit of variation in which the HRT may or may not occur. It usually corresponds with a clause or sentence, but may be used on any grammatical unit depending on how speakers choose to segment their utterances. Each tone group is a meaningful block of information with a "syntactically and semantically coherent structure" (Britain 1992:12). The total number of tone groups for each child was calculated, excluding tone groups which were not considered to be potential sites for HRTs, namely:

- questions, both direct and tagged;
- imperatives;
- a small number of words and phrases, namely,
  - yes, OK, right* (meaning "OK"); *no, not really; I don't know, I dunno;*
- incomplete tone groups where there were insufficient contextual clues to enable the listener to guess at what the speaker meant, and where the speaker appeared to have made a false start.

## *High rising terminals in the speech of New Zealand children*

Tone groups containing HRTs were identified by ear, HRTs being identical to Tone 2 as defined by Halliday (1970:10) where, "the tonic rises to a high pitch and the rise is fairly steep". When I was unsure as to whether or not a tone group contained an HRT, I checked my impression with another linguist. HRTs for each child were counted. HRTs as a percentage of all tone groups were then calculated for each child.

All tone groups were classified according to text type, with the categories of text type defined as follows:

**Description:** recitation of the characteristics of a person, place, object or event; a verbal portrait.

**Explanation:** accounts, clarifications or justifications of previously mentioned concepts, locations, people, situations etc. (after Britain 1992:13).

**Narrative:** recapitulation of past experience.

**Opinion:** judgement or belief, view held as probable.

The percentage of tone groups was calculated within each text type category which contained HRTs. A Varbrul analysis of the data was carried out using the Goldvarb 2.0 Macintosh package.

## **Results**

The total number of tone groups for all children was 1,527. Of these 138 tone groups, or 9.04% of all tone groups, were HRTs. This is considerably higher than the only other available figure for children's HRT usage. Guy *et al.* (1986) reported that 1.6% of the tone units used by 11-14 year-old children in Sydney were HRTs. The New Zealand children I interviewed appear to be using considerably more HRTs than the Australian children interviewed in the Sydney social dialect survey.

Within my sample, as table 1 illustrates, HRT use among 9 year olds was on average higher than among 4 year olds, 13.76% as compared to 2.24%, ( $p < 0.001$ ), which is what one might expect given their different developmental stages. The older children use considerably more HRTs. This figure also increases the difference between the Australian and New Zealand samples, since the 9 year olds are a more appropriate comparison group than the 4 year olds for a group of Australian 11-14 year olds.

Turning to gender differences, it should be noted that at first sight it seems that there is no difference between boys' and girls' usage of HRTs (9.04% for both,  $p = 0.900$ ). This is an interesting and unexpected result given Britain's findings on Pakeha young men and women (2.7% as compared to 8.78%). It suggests sex differences in this area of linguistic usage might develop later than age 9. However, examination of individual children's scores shows that one 9 year old boy (Child 10-9yr) has an extraordinarily high frequency of HRTs, namely 39.4%, which accounts

Table 1. Tone Groups and HRTs by Age and Gender

4 YEAR OLDS				9 YEAR OLDS			
GIRLS				GIRLS			
Child	TGs	HRTs	%	Child	TGs	HRTs	%
4	133	8	6.02	8	141	8	5.67
6	70	1	1.43	4	117	31	26.50
1	55	1	1.82	9	89	6	6.74
8	55	2	3.64	1	87	13	14.94
3	26	0	0.00	7	79	7	8.86
Total	339	12	3.54	Total	513	65	12.67
BOYS				BOYS			
Child	TGs	HRTs	%	Child	TGs	HRTs	%
7	73	0	0.00	10	99	39	39.39
9	74	0	0.00	6	91	9	9.89
5	49	2	4.08	3	70	6	8.57
10	48	0	0.00	2	69	5	7.25
2	43	0	0.00	5	59	0	0.00
Total	287	2	0.70	Total	388	59	15.21

	4 YEAR OLDS			9 YEAR OLDS			COMBINED		
	TG	HRT	%	TG	HRT	%	TG	HRT	%
GIRLS	339	12	3.54	513	65	12.67	852	77	9.04
BOYS	287	2	0.70	388	59	15.21	675	61	9.04
COMBINED	626	14	2.24	901	124	13.76	1,527	138	9.04



## *High rising terminals in the speech of New Zealand children*

for 64% of all the boys' HRTs. This figure skews the results considerably, especially given that five of the ten boys scored 0.0% HRTs. If this boy were taken out of the survey, the boys' score would be 3.81%, giving a pattern which would correlate much more closely with Britain's findings. It should, however, be noted that Britain also had an outlier in his sample. This person accounted for 40% of all middle class young women's HRTs. HRT usage may involve particularly wide ranges of occurrence for different individuals.

Figure 1 shows graphically the difference Child 10-9yr makes to the overall pattern of results. Interestingly, unlike most of the other 9 year olds, Child 10-9yr did not attend Karori West School. He was one of the two children interviewed who attended the university's school holiday programme and he normally went to a private primary school in central Wellington. This suggests that the imputed social correlates for HRT use may be in need of revision. The Sydney data suggested that HRTs were more often a feature of working class speech than of middle class speech (Guy *et al.* 1986:37), though Britain (1992:90) found the difference between working and middle class Pakeha female usage to be insignificant. The extreme pattern of HRT use by Child 10 certainly supports the suggestion that HRTs are not a feature distinguishing working class speech from middle class speech in New Zealand, and even suggests they are not a stigmatised feature in children's speech.

4 year old girls use more HRTs than 4 year old boys. Furthermore, it should be noted that one of the girls (Child 6-4yr) was in fact aged 3:9 at the time of recording and she produced one HRT. Another interesting point relates to two rather dubious instances of HRTs recorded for the boy, Child 5-4yr. These two instances did not seem to be canonical HRTs if function as well as form is used as a criterion of identification. Though they sound like HRTs, they do not fit any of the functions thus far postulated for HRTs.

“we've got lots of toys blocks cars puzzles≠ + I have≠”

The function of the rising intonation here seems to be one of emphasis. The boy is assuring me that what he says is true. There is a similar instance with Child 8-4yr:

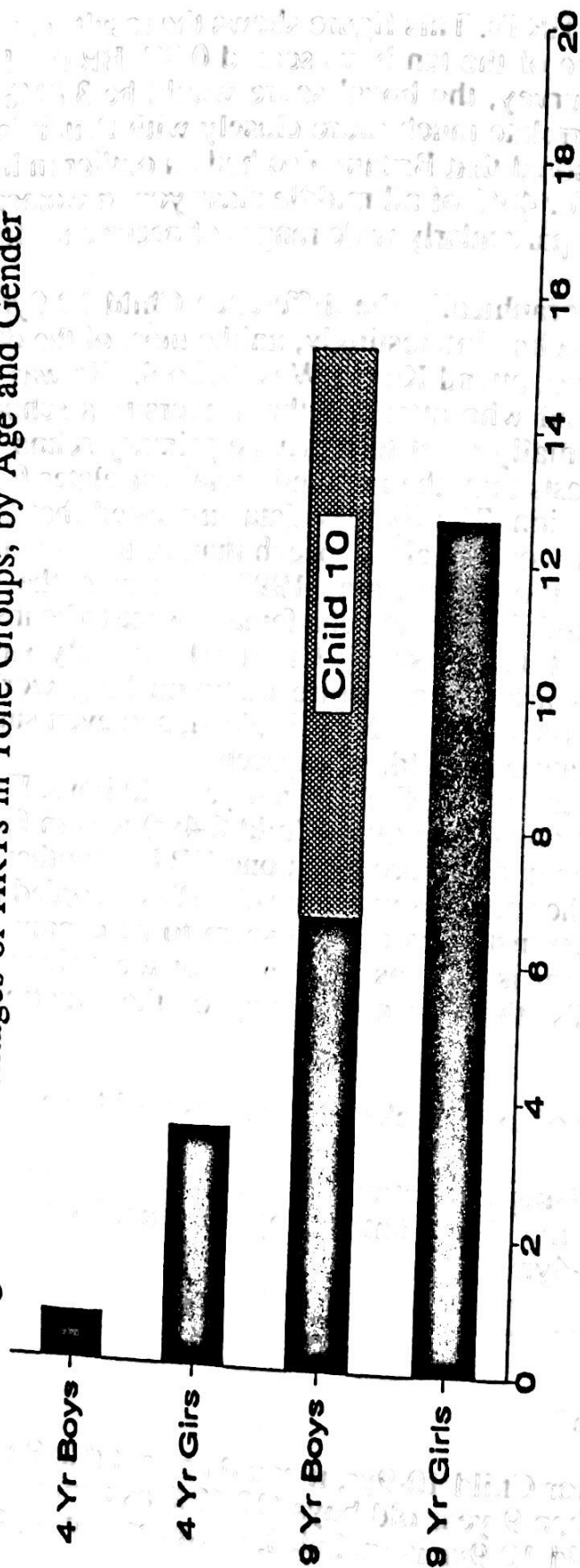
he eats wood≠

*he eats wood?*

yeah he eats stones≠

Apart from the data for Child 10-9yr, it could be said that 9 year old girls favour HRTs more than 9 year old boys (12.67% as compared to 6.92%,  $p=0.008$ ). When Child 10-9yr is included, however, the 9 year old boys

Figure 1. Percentages of HRTs in Tone Groups, by Age and Gender



*High rising terminals in the speech of New Zealand children*

Table 2. Tone Groups by Text-Type  
Four Year Olds

Child	Narrative			Explanation			Descriptive			Total		
	TG	HRT	%	TG	HRT	%	TG	HRT	%	TG	HRT	%
1 F	17	0	0.0	30	1	3.3	8	0	0.0	55	1	1.8
2 M	7	0	0.0	31	0	0.0	5	0	0.0	43	0	0.0
3 F	2	0	0.0	22	0	0.0	2	0	0.0	26	0	0.0
4 F	0	0	-	114	8	7.0	19	0	0.0	133	8	6.0
5 M	6	0	0.0	39	2	5.1	4	0	0.0	49	2	4.1
6 F	8	0	0.0	62	1	1.6	0	0	-	70	1	1.4
7 M	1	0	0.0	61	0	0.0	11	0	0.0	73	0	0.0
8 F	0	0	-	53	2	3.8	2	0	0.0	55	2	3.6
9 M	0	0	-	73	0	0.0	1	0	0.0	74	0	0.0
10 M	7	0	0.0	38	0	0.0	3	0	0.0	48	0	0.0
	48	0	0.0	523	14	2.7	55	0	0.0	626	14	2.2

Table 3. Tone Groups by Text-Type  
Nine Year Olds

Child	Narrative			Explanation			Descriptive			Total		
	TG	HRT	%	TG	HRT	%	TG	HRT	%	TG	HRT	%
1 F	51	5	9.8	28	7	25.0	8	1	12.5	87	13	14.9
2 M	39	4	10.3	27	1	3.7	3	0	0.0	69	5	7.3
3 M	23	5	21.7	45	1	2.2	2	0	0.0	70	6	8.6
4 F	43	12	27.9	72	19	26.4	2	0	0.0	117	31	26.5
5 M	15	0	0.0	44	0	0.0	0	0	-	59	0	0.0
6 M	32	3	9.4	59	6	10.2	0	0	-	91	9	9.9
7 F	23	2	8.7	50	5	10.0	6	0	0.0	79	7	8.9
8 F	38	4	10.5	101	4	4.0	2	0	0.0	141	8	5.7
9 F	28	3	10.7	56	3	5.4	5	0	0.0	89	6	6.7
10 M	48	23	47.9	49	15	30.6	2	1	50.0	99	39	39.4
	340	61	17.9	531	61	11.5	30	2	6.7	901	124	13.8

## *High rising terminals in the speech of New Zealand children*

are shown to favour them more (15.21% as compared to 12.67%). This difference is not significant ( $p=0.32$ ).

### **HRTs , text type and age**

Analysis of HRTs by text type and age gives a strikingly different pattern of results for 4 and 9 year olds. The 4 year olds reserved their HRTs for explanatory texts only, while the 9 year olds' pattern of usage more closely resembles that of the adults from the Porirua survey (Britain 1992), with narrative being the most favoured context (17.9%) followed by explanation (11.5%) and then description (6.7%) ( $p<0.001$ ). Since no "Opinion" tone groups appeared they are omitted from the tables.

There were very few tone groups which could be classified as narrative in the 4 year olds' data (7.66% of all tone groups), and not many more which could be classified as descriptive (8.78%). The dearth of HRTs in narrative contexts could be a reflection of lack of success in eliciting narrative texts from this age group. More time with each child and/or different elicitation techniques might have helped.

Of the 138 HRTs produced, only five occurred in single clause turns. Two were produced by 9 year olds and three by 4 year olds. The remainder of all HRTs occurred in multiple clause turns. There were no instances of HRT in single word turns. The 4 year olds' turns were on the whole considerably shorter than those of the 9 year olds, so it is only to be expected that they would have a higher percentage of HRTs occurring in single clause turns (21.43%). 9 year olds had a 1.61% occurrence of HRTs in single clause turns.

## **Discussion**

### **Linguistic change in progress or a developmental stage?**

It would appear that the HRT is a prominent feature in the speech of 9 year old New Zealanders. The percentage use of HRTs for 9 year olds, (13.8%), is higher than for any other group previously studied including the Maori of Britain's Porirua study (9.74%).

The high score for these children possibly adds weight to Britain's findings that linguistic change is in progress with respect to this feature. In this scenario the children's scores could be as high as they are because they have young adults around them using HRTs. It is possible that they are modelling their speech on what they hear and will carry the feature through into adulthood.

Alternatively it may be that the high figures for 9 year olds are a reflection of their developmental stage and that this is the norm for children of their age. They hear the HRT being used by their peers, decide

that it is the "in thing" to sound like this and then overdo it. If this is the case, it is possible that use of HRTs will peter out as the children mature.

### Weak HRTs

There is a phonetic quality of rising intonation present in the speech of many of the children which closely resembles the HRT but does not rise so far or so decisively. This may be the same phenomenon observed and measured by Guy *et al.* (1986:42). They refer to it as "atypical rise". I prefer to call it "weak HRT" though I have not included any instances of it in my analysis. My impression is that children who use it frequently tend to favour HRT usage also. These weak HRTs occur in similar settings and appear to share similar functions. Take the following passage from Child 4-9yr where "weak HRTs" are marked with (^):

This morning + I was trying to get something out of this really high + shelf(^) *mm hm* and I was standing on one of those really tall stools(^) *mm hm um um ++* it was really freaky + and um I was standing on there + and the chair fell down(^) *mm* and I flipped backwards I landed on the bar right there + and I bruised my rib^

It may be that the child intended to use HRTs but did not always quite succeed. It is also possible that this is evidence of a developmental stage in the acquisition of the feature HRT.

### Function of HRTs

The data analysed in this study suggest that the HRT emerges in the speech of girls at an earlier age than it does with boys. At Karori West School the 9 year old girls favour HRTs more than their male peers. Cruttenden commented that girls are said "to use more expressive intonation than boys, who play it cool: expressive intonation refers to the two factors of more rises and wider key." (1986:136). The HRT may be expressive in this phonetic sense, but its meaning is significant too. I believe that there must be a connection between the gender role the girls are learning, their frequent use of the HRT, the early age at which they learn to use them and the function of the HRT. If girls are concentrating their efforts, as Maltz and Borker claim (1982), on learning to create and maintain relationships of closeness and equality which involve recognition of others' speech rights, then the HRT could be a handy device for them if we accept the functions "verification of listener comprehension" (Guy and Vonwiller 1984:4) and positive politeness device aimed at emphasizing the agreement and solidarity shared between speaker and listener (Britain 1992).

Boys, who are, according to Maltz and Borker, learning to be competitive and to outdo each other verbally, would be less likely than girls to be particularly concerned about "listener comprehension" or about

## *High rising terminals in the speech of New Zealand children*

“agreement and solidarity shared between speaker and listener,” and would therefore be less likely to use HRTs.

Child 10-9yr is distinctly unusual if this is the case. A possible explanation for this boy's high HRT score is that private schools, like the one he attends, stress polite behaviour, both negative and positive, to others, particularly adults, and he may be a model pupil, admirably demonstrating his training. A study of private school children might throw further light on this speculation.

It is also worth noting that a male interviewer might have elicited a different speech style. A greater feeling of “solidarity” with the boys might have been engendered, which could have resulted in a higher rate of HRTs for the boys, and conversely a lower rate among the girls.

I cannot categorically define the function of HRTs as used by these children. The contexts in which they appear seem to equate with those of adults, and it seems safe to assume that they share the same function or functions. My hesitancy in saying this arises from the situation in which the children found themselves. The presence of a stranger with a tape recorder might well have engendered feelings of “uncertainty” and probably also of “deference.” However, it is possible to rule out “uncertainty” as a function of the children's HRTs. These children were telling me facts about which they had knowledge and I did not.

It is not so easy to eliminate “deference” as a possible function. The only comment I can make here is purely subjective. I had asked the teacher and supervisors to select for me socially confident children. My impression of the demeanour of most of the children was one of openness, friendliness and confidence. Most appeared to be very happy to have a captive adult audience to listen to them chatter about things that interested them. Karori West School is a “normal” school which means that the children are used to visits from unfamiliar adult observers. The creche children are used to relating to several different adult supervisors and parent helpers. I believe, given all this, that the children's use of HRTs was for the most part a request for verification that I understood what they were saying. Their HRTs also reflected their outgoing and friendly attitude to me. They wished to share their experiences with me, and did not wish to speak in a long, boring monologue where there was no place for me as the listener. The HRT functioned as an active, positive, politeness device.

## **Conclusion**

This study has provided some evidence that the intonational feature, HRT, is beginning to emerge in the speech of 4 year old girls, and possibly in that of 4 year old boys. It was also clearly identified as a frequent feature in the speech of 9 year olds, both boys and girls. Given the fact that these children use a higher frequency of HRTs than has been reported in the speech of any previous sample, it seems likely to be a change in progress.

However, more research is needed to confirm this suggestion. It would be particularly interesting to study the speech of this sample of children in ten years time to see whether they are still using the same frequency of HRTs. A direct comparison would be very difficult given that different elicitation techniques would presumably be required. However, such a study could give a more reliable guide on whether the HRT is here to stay or is merely a passing fancy.

This study also demonstrated that HRTs tended to occur in multiple clause utterances, and in narrative, explanatory and descriptive contexts. Though 4 year old children's usage in this area does not resemble that of adults, the gap appears to have closed by the age of 9. It would be interesting to undertake a survey of 6-7 year old children in order to trace the rate of development of this feature.

Two other questions which have been raised by this study relate to the sociolinguistic variables of socio-economic class and ethnicity. Britain's (1992) analysis of the Porirua survey data found no significant class difference in HRT usage. However, the class comparison in that study was based only on an analysis of Pakeha women's usage. The one child in this study who attended a private school used a very distinctive pattern of HRTs which was not at all typical for others of his age and gender. Comparison of the material collected for this study with similar material collected from a private school on the one hand, and a school in a working class area on the other would be interesting.

Britain also reported that, overall, Maori adults used more HRTs than Pakeha adults. The 9 year old Pakeha children in this study used more HRTs than even the Maori adults in Britain's study. A study comparing Maori and Pakeha children of similar ages would therefore be a further interesting extension of this study. It seems unlikely that 9 year old middle class Pakeha children are in the forefront of linguistic change, but until there is further research in this area it must be recognised that this study has shown these children using the highest recorded frequencies of HRTs in Australia or New Zealand.

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*High rising terminals in the speech of New Zealand children*

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