This paper examines the use of two tones by speakers across a variety of discourse types in the Hong Kong Corpus of Spoken English (HKCSE). Specifically, it focuses on the use of the rise and rise-fall tones by speakers to assert dominance and control in different discourse types. Brazil (1997) argues that the use of the rise and the rise-fall tones is a means of asserting dominance and control at certain points in the discourse and that while conversational participants have the option to freely exchange this role throughout the discourse, in other kinds of discourse such behaviour would be seen to be usurping the role of the designated dominant speaker. The findings suggest that the choice of certain tones is determined by both the discourse type and the designated roles of the speakers, but is not confined to the native speakers or determined by gender.

Keywords: discourse intonation, Hong Kong Chinese, native English speakers, speaker dominance, business discourses, conversations, academic supervisions

1. Introduction

The Hong Kong Corpus of Spoken English (HKCSE) is a 2 million word corpus (i.e. approximately 200 hours) of naturally occurring spoken discourses between adult Hong Kong Chinese and native speakers of English. The HKCSE consists of four sub-corpora each of which represents a major set of spoken discourse types in the context of Hong Kong. Briefly, the four are: conversations collected in a wide variety of social settings, academic discourses, business discourses, and public discourses. The participants in the discourses are all required to give their consent prior to the recording and information is recorded with regard to age, gender, occupation, educational background, place of birth, time spent living/studying overseas (for the Hong Kong Chinese) and mother tongue. The HKCSE is unique in two respects. First, it is the largest corpus of naturally-occurring spoken English discourses compiled in Hong Kong. Second, the HKCSE is orthographically
transcribed and half of the corpus (i.e. approximately 100 hours) is prosodically
transcribed which is a major task rarely undertaken with a corpus of this size. This
study, through focusing on the use of intonation across a variety of text types
contained within the HKCSE, will in part serve to illustrate the additional value to the
corpus linguist of having a prosodically transcribed corpus to work with. The
discourse intonation system (Brazil 1985 and 1997) adopted to do the prosodic
transcription is briefly outlined below.

2. Discourse intonation
The discourse intonation system developed by Brazil (1985 and 1997) and others (see,
for example, Coulthard and Brazil 1981; Coulthard and Montgomery 1981; Sinclair
and Brazil 1982; Hewings 1990; Cauldwell 2002) was chosen to prosodically
transcribe the HKCSE because it is primarily concerned with the function of
intonation in English and its communicative value. This system is of particular
relevance to the researchers working with the HKCSE to further our understanding of
discourse, intercultural communication and pragmatics (see for example, Cheng and
of a set of choices available to speakers and these choices are not formulated with
reference to grammar and do not have fixed attitudinal meanings. A study by Chun
(2002: 15-45) of the various approaches to the phonological organisation of prosody
points out that discourse intonation is a break with other traditions in the field. The
approach is in contrast to those (see for example, Chomsky and Halle 1968; Liberman
and Prince 1977; Pierrehumbert 1980) who saw rule-driven generative phonology as
a natural follow-on to their work in generative grammar. Later work by the
generative phonologists has tried to assign meaning to intonation, but the data used
has been experimentally acquired for the most part (see, for example, Pierrehumbert
and Hirschberg 1990). Discourse intonation is also in opposition to those, such as
O’Connor and Arnold (1973) and Crystal (1975, 1995), who seek to describe tones
based on the fixed attitudes that they convey.

It will be seen in this paper that discourse intonation offers a different
description of intonation to the grammatical and attitudinal. The first of these
suggests that there are tones which are typically chosen with particular syntactic
structures, such as rise tone with yes/no questions, and fall tone with wh- questions,
statements and commands, and that even when the conventional structure is not
employed the meanings conventionally associated with them will also be spoken with these same tones. The attitudinal description of intonation ascribes to tones a set of meanings depending on the function of the utterance. In terms of rise tone examined in this study, it is described as having the attitudinal meaning of ‘reassuring’ with *wh*-questions (Cruttenden 1997: 99) and ‘non-committal’ or ‘grumbling’ with declaratives (Cruttenden 1997: 97). The rise-fall tone can mean ‘impressed’ with yes/no question and declaratives or ‘challenging’ with ‘clauses of any syntactic type’ (Cruttenden 1997: 92-93).

In terms of the break with attitudinal descriptions, (see, for example, Cauldwell 1997), discourse intonation can in part be traced back to the work of Halliday (1963, 1967) who was concerned with developing a phonological typology based on meaning-making grammatical choices, although in discourse intonation the link to grammatical forms has gone (Chun 2002: 36). The choice of discourse intonation as the preferred system for the prosodic transcription of the HKCSE is also in line with those (see for example, Couper-Kuhlen and Selting 1996: 12-13) who call for the examination of the functions of intonation in naturally-occurring discourses to better determine their pragmatic and situated meanings.

The application of the discourse intonation framework has not been confined to British English. Other varieties of English such as Malaysian English (Hewings 1986) and Singaporean English (Goh 1998, 2000) have been analysed using discourse intonation and also other languages such as Italian, German and Swedish (Hewings 1990). Such studies suggest that the communicative role of intonation described by Brazil (1985, 1997) has wider applications. Therefore while this study is breaking new ground in applying a discourse intonation framework to Hong Kong English, it is by no means the first attempt to apply it to data that are not ‘standard’ British English. From a logistical perspective, it is well-known that it is both difficult and time-consuming to prosodically transcribe naturally-occurring data and it requires inter-transcriber reliability measures to ensure the quality of the transcription. In this regard, the prosodic transcriptions of the HKCSE were subjected to cross-checking involving three individuals and further quality assurance was provided by a consultant to the project with many years of experience in transcribing and analysing discourse intonation.

The HKCSE is the first large-scale attempt to employ the discourse intonation system to mark intonation, but it is not the first corpus to have added a prosodic
transcription to the usual orthographic. The London-Lund Corpus (Svartvik 1990: 15), a corpus of approximately 500,000 words, has prosodic transcription that shows tone units, onsets, location of nuclei, direction of nuclear tones and two degrees of stress. The Survey of English Usage (Svartvik 1990: 15), with 170,000 words, has a fuller marking of prosodic features which includes varying degrees of loudness and tempo, modifications in voice quality and other paralinguistic features in addition to the features marked in the London-Lund Corpus. The Spoken English Corpus (see for example, Knowles et al. 1996; Wichmann 2000) is a 50,000 word corpus which represents the following prosodic features: tone groups, stressed and accented syllables, pitch direction, simple and complex tones, high and low tones, and significant changes of pitch that are not covered by the tone markings (Taylor 1996: 28-29).

In Brazil’s description of discourse intonation (1997), the system adopted by this study, speakers can select from four systems: prominence, tone, key and termination. Within the prominence system, speakers can choose to make a syllable(s) (and thus the word it is in) prominent and so indicate that it is a situationally more informative item in that particular context. In terms of tones, speakers can basically select between ‘referring’ (fall-rise or rise) or ‘proclaiming’ (fall or rise-fall) tones based on their perception at that point in the discourse as to whether the information is common ground between the participants or new. A speaker’s choice of high, mid or low key serves to indicate contrastive, additive or equative information, respectively. Lastly, the choice of high, mid or low termination at the end of a speaker’s utterance impacts the subsequent interaction so that high termination constrains the hearer to respond with opening high key, mid constrains the hearer to respond with opening mid key, and low does not predict a response.

All of these intonational choices, and there are thirteen in all from the four systems described above (Hewings and Cauldwell 1997), are motivated by real-time, situation-specific decisions by the speaker to add additional layers of meaning to words as they are being spoken. The study presented here concentrates on one of these systems: tone. The study is exploratory in nature and adopts a quantitative methodology that constitutes a first step in an investigation of the range of tone choices available to particular speakers based on the roles assigned to speakers across a range of discourse types. The rationale for this focus is outlined in the next section.
3. The use of intonation to assert dominance and control

In discourse intonation there are five tones that speakers may choose from. Four of these are used to distinguish between information that is common ground and information that is new (see Figure 1). The fifth tone is level tone which is associated with tone units which precede an encoding pause or otherwise truncated tone units (Brazil 1997: 140). The level tone is also chosen when the speaker does not intend to either proclaim or refer and, in so doing, disengages from the immediate interactive context or it can be chosen for rhetorical effect (Brazil, 1997: 140).

fall-rise

refer → either

rise

either

fall

proclaim → either

rise-fall

(Adapted from Brazil 1997: 83)

Figure 1. The referring and proclaiming tone choices available to speakers

Within the tone system illustrated above, a speaker can choose from one of four tones. The basic choice for a speaker is between a referring tone and a proclaiming tone depending on whether the speaker assumes that the information is common ground between the participants or not. Once this basic choice has been made, the speaker has a further choice between two kinds of referring tones and two kinds of proclaiming tones. The distinction between the two referring tones is that the fall-rise indicates that this part of the discourse will not enlarge the common ground assumed to exist between the participants and the rise tone reactivates something which is part of the common ground (Brazil 1997: 82-96). In terms of the two proclaiming tones, the fall tone shows that the area of speaker-hearer
convergence is being enlarged while the rise-fall tone indicates addition to the common ground and to the speaker’s own knowledge at one and the same time (Brazil 1997: 97-98).

It should be noted that a speaker's choice between selecting fall-rise or fall tones is by no means unique to one particular kind of spoken discourse. Brazil suggests that this is the basic choice to be found in all forms of spoken discourse. However, there are tone choices which he characterises as being 'participant specific' in specialised discourse types (Brazil 1985: 129-132). These participant specific tones are the rise tone and the rise-fall tone. The decision to choose one of these two tones is made in terms of fall-rise/rise or fall/rise-fall and, more importantly, Brazil explains the rationale behind these choices by describing the role relationships pertaining between the participants in a discourse. In discourse types where one speaker is dominant, in the sense of having greater responsibility for the discourse and greater freedom in making linguistic choices, that designated dominant speaker monopolises the fall-rise/rise choice. This observation would apply to the teacher in classroom talk, the interviewer in an interview, the doctor in a doctor/patient consultation, and so on. The rise-fall tone is the least prevalent of the tones (Brazil, 1997: 86), but, again, Brazil claims that it tends to be the dominant speaker(s) in a discourse, in which the participants are of unequal status, who alone makes this selection. The types of discourse in which one participant is dominant, and thus is designated 'all-knowing' by the institutionalised relationships in force, would limit the selection of the rise-fall tone to that participant. In other words, in the same kinds of discourse in which one finds the use of the rise tone the preserve of a particular participant, one can expect to find that the selection of the rise-fall tone is similarly restricted.

In conversations, however, the selection of the rise and the rise-fall tones is not restricted by the existence of institutionalised inequalities between the participants, and if a speaker, for whatever reason, wishes to assert dominance and control through the selection of these tones he/she has the option to do so. Consequently, in conversation these tones are selected by all, some or none of the participants depending on the moment by moment decisions of those involved and not on the basis of a restrictive set of conventions. Brazil (1985: 131) argues that in conversation there is 'an ongoing, albeit incipient, competition for dominance'. However, he adds that this does not necessarily imply aggressiveness or rudeness on
the part of speakers, rather it can be characterised as ‘to remind, underline, emphasize, insist or convey forcefulness’ (Brazil 1997: 98) when a speaker selects a rise or rise-fall tone, and so overtly assumes the status of the dominant speaker. The important point is that dominant speaker status is neither predetermined nor fixed in conversation and is typically interchangeable among the participants as the discourse unfolds.

It needs to be made clear that while the words ‘dominance and control’ have a generally negative ‘semantic environment’ or ‘semantic prosody’ (see, for example, Sinclair 1991: 112; Louw 1993: 158-159), the fact that speakers choose to use the rise and the rise-fall tones to exert dominance and control locally in a discourse is not an inherently negative behaviour. While it is possible that the overuse of these tones by a participant not deemed to be in an institutionalised dominant role might be heard to be usurping the designated dominant speaker, this would require repeated rather than isolated use of these tones by the speaker. Brazil (1997: 86) argues that the primary function of the rise and the rise-fall tones is to facilitate the smooth exchange between the discourse participants. In any discourse, there is the need at times for speakers to exert dominance and control of the discourse. What is of interest here is whether this, to an extent, is predetermined by the roles assigned to speakers in particular discourse types.

4. The uses of the rise and the rise-fall tones

Before the aims of the present study are described and the findings analysed, it is useful to first describe the main uses of the rise and the rise-fall tones in exerting dominance and control. A number of controlling or dominating uses are given (Brazil, 1997: 89) for the rise and the rise-fall tones. These are illustrated with examples below from the HKCSE.

4.1 Continuative use of the rise tone

The continuative use of rise tone serves to convey to the hearer that the speaker is underlining the expectation that she/he will be allowed to continue to speak (Brazil 1997: 88-93). Extract 1 is taken from the sub-corpus of business discourses in the HKCSE and is a discourse type termed ‘informal office talk’ between a Hong Kong Chinese woman and her male colleague.
Extract 1. (HKSCE)

WORK

a₁: // ↗ for → i’ve BEEN to er // ↗ FUzhou // ↗ XIAmen // → AND //

↗ there’s NANjing // → AND er // ↘ for HOliday // ↗ i’ve BEEN to SHANGhai // → AND // → i’ve ALso // → er WENT to er // ↗ KOAsiung // ↗ in TAIwan // → ER // ↘ for WORK and HOliday //

BOTH

Speaker a, in extract 1, is listing the places she has visited in mainland China and Taiwan for both work and pleasure. To indicate to her colleague that her list is ongoing she chooses the rise tone as she names each location. Through her choice of tone she asserts control of the discourse at these points in order to hold on to her turn and so complete her list.

4.2 Use of the rise tone to exert pressure on hearer to speak

Speakers can choose the rise tone in certain contexts to put pressure on the hearer to respond to what they have said (Brazil 1997: 93). Extracts 2 and 3 are the openings of two separate service encounters recorded at an information counter at Hong Kong airport involving two different female service providers interacting with two different customers.

Extract 2. (HKCSE)

a: // ↗ YES // ↗ CAN i help you //

Extract 3. (HKCSE)

a: // ↗ good EVEning SIR // ↗ CAN i help you //
In both of the above extracts the same sequence of tone choices can be seen. Brazil (1997: 95) also gives an example of a service provider’s use of the rise tone with *can I help you* and argues that the question is probably perceived as warmer when the rise tone is used than if it was uttered with the fall-rise tone. The reason for this is that the speaker’s choice of tone to control of the response would be understood as a more ‘wholehearted’ (Brazil, 1997: 95) attempt to ensure that the offer of help is taken up. This example confirms that a speaker’s choice to assert dominance and control should not be associated automatically with either positive or negative behaviour.

4.3 Use of the rise tone to openly remind the hearer(s) of common ground

The dominant speaker in a discourse can choose to assert dominance through the use of the rise tone to openly assert that the hearer needs to be reminded of something that is common ground between the participants (Brazil 1997: 96). Extract 4 is taken from a work placement interview involving an undergraduate being interviewed by the human resources manager of a 5-star Hong Kong hotel. The purpose of the interview is to determine whether the student is suitable to be placed in the hotel and, if so, which department of the hotel he will be placed in.

**Extract 4. (HKCSE)**

b:  

\[ u^2 \rightarrow \text{UM} \rightarrow \text{i WANT to ASK} \rightarrow \text{if i HAVE} \rightarrow \text{any CHANCE to}

\[ \text{WORK} \rightarrow \text{ER} \rightarrow \text{as a BARtender} \rightarrow \text{OR} \rightarrow \text{SOMething in the BAR} \]

Earlier in the interview, speaker b was asked which department he would like to work in during his placement and he told the interviewer that he would like to work in the bar. The interview is nearing its conclusion and the interviewer has asked speaker b if he has any questions and above is his first question. The interviewee repeatedly chooses the rise tone to reactivate common ground, and in so doing, reminds the interviewer that he is very keen to work as a bartender or in any other capacity in the hotel’s bar. This choice by the interviewee might also be due to the relative tentativeness of a rise tone, compared to a fall in this context, when the interviewee has to repeat the question but does not want to be seen to be too demanding.
4.4 Use of the rise-fall tone to mark a change in the speaker’s world view

The rise-fall tone is used by speakers to indicate how ‘the world view of speaker and hearer are to be regarded as relating’ (Brazil 1997: 97). In other words, the use of the rise-fall tone allows the speaker to overtly (i.e. in a dominant or controlling fashion) modify her/his own world view as events both internal and external to the discourse unfold and hence the extent of convergence between the speaker and the hearer. In addition, according to Brazil (1997: 97), the choice of the rise-fall tone indicates to the hearer that no feedback is expected or that the speaker intends to continue to speak and so asserts control of the progress of the discourse. Extract 5 is from a conversation between two female friends having lunch in a restaurant.

**Extract 5. (HKCSE)**

1. a: and then with the oil and butter um (.) I I’m not sure (.) it’s a kind of

2. mushroom the Japanese mushroom okay

3. A: ((laugh)) // oKAY //  the LONG thin

4. WHITE ones // RIGHT //

On lines 1 and 2, speaker a is trying to describe one of the dishes she is thinking to order for lunch and she is not able to be very specific about the exact kind of mushroom in the dish. Speaker A acknowledges her friend’s description with a laugh and *okay* on line 3 and then it suddenly dawns on speaker A exactly what the mushroom is that her friend has been trying to describe. She chooses the rise-fall tone when she says *I know*. Here the choice of the rise-fall tone marks the modification of the speaker’s world view at the very moment that she succeeds in remembering. Locally, it might be heard as equivalent to ‘Eureka!’ Brazil (1997: 97) states that it is heard as this precisely because the use of the rise-fall tone isolates that part of the discourse from the rest of the discourse through the speaker choosing to use the dominant and controlling form of proclaiming tone. It can be seen that speaker A’s actual description of the mushrooms as *the long thin white ones* on lines
3 and 4 is said with a fall tone as the moment of the modification of the speaker’s world view has passed.

5. The present study
This ‘corpus-driven’ (Tognini-Bonelli 2000, 2001) study has several aims in relation to an examination of the use of intonation to exert dominance and control. First, it examines Brazil’s claim that certain tone choices are monopolised by the designated dominant speaker in discourses other than conversations. Second, it examines whether similar patterns of tone choice are found across the two sets of speakers and across gender in the HKCSE. Last, it examines whether the monopolising, if it exists, of certain tones by the designated dominant speakers is uniform across the different discourses drawn from the HKCSE.

6. Distribution of the rise and the rise-fall tones across discourse types
In order to examine a cross-section of text types in the four sub-corpora of the HKCSE to determine the use of the rise and the rise-fall tones by speakers to exert dominance and control, six discourse types were selected: conversations (31,255 words), service encounters (4,642 words), informal office talk (19,715 words), placement interviews (23,653 words), business meetings (14,632 words) and academic supervisions (25,837 words). These text types were chosen on the basis that, in theory, some of them do not have an institutionalised designated dominant speaker (i.e. conversations and informal office talk) while the remainder do. The discourses were also chosen on the basis that in each discourse the talk is spread evenly across the participants in terms of the number of words spoken by each participant in order to make it possible to make direct comparisons when analysing the data. Except for a few interactions, all the data examined in this study are intercultural in nature with Hong Kong Chinese (HKC) and native speakers of English (NS) as discourse participants. In terms of English language proficiency, all of the Hong Kong Chinese participants, with the exception of those in the service encounters, are highly competent speakers of English and almost all are university educated (English is the medium of instruction at universities in Hong Kong). The service providers in the service encounters have the basic English language proficiency to handle the particular contexts for which they have been employed, and their proficiency in English will have been an important factor in their recruitment.
For each discourse type, a search was conducted to determine the frequency with which each participant used the rise and the rise-fall tones when speaking and the results for each discourse type are tabulated below.

6.1 Conversations

The conversations contained in the HKCSE were collected in a variety of settings such as homes, restaurants, cafés, pubs and cars. All of the participants were friends and regularly conversed with each other in English.

<table>
<thead>
<tr>
<th>Conversations (HKC, NS)</th>
<th>Hong Kong Chinese rise tone</th>
<th>Native Speaker rise tone</th>
<th>Hong Kong Chinese rise-fall tone</th>
<th>Native Speaker rise-fall tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (female, female) 19</td>
<td>26</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2 (female, male) 70</td>
<td>47</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3 (male, male) 56</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4 (female, female) 23</td>
<td>21</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 (female, male) 47</td>
<td>88</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>6 (male, male) 64</td>
<td>56</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7 (male, male) 126</td>
<td>113</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8 (male, male) 60</td>
<td>52</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total 465</td>
<td>436</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that the overall distribution of rise and rise-fall tones between the two sets of speakers is quite even, although the number of rise-fall tones is very low and so it is difficult to generalise from these data. This confirms the claim by Brazil (1985: 131) that in a conversation any participant can choose to employ these tones in order to exert dominance and control at specific points in the discourse. However, it needs to be added that the fact that any participant can choose to employ these tones does not mean that their use is invariably evenly spread between the participants. A conversation might well be dominated by one of the speakers for a variety of possible reasons and this can be seen in several of the conversations (i.e. conversations 1, 2, 3 and 5) in Table 1 where one of the speakers has made greater use of these tones than the other speaker. The important point is that this is not pre-determined in conversations and so across a number of conversations the use of these tones becomes evened out. It is interesting to note that the overall even distribution...
of these tones shows that it is not influenced by either the gender or the first language of the speakers.

6.2 Service encounters

Service encounters are one of the discourse types contained in the business sub-corpus of the HKCSE. These discourses were collected at check-in counters and information counters at Hong Kong’s airport, hotel reception desks and retail outlets. They all involve Hong Kong Chinese service providers interacting with native English speaker clients/customers.

Table 2. Distribution of rise and rise-fall tones in service encounters

<table>
<thead>
<tr>
<th>Service Encounters (HKC, NS)</th>
<th>Service Provider rise tone</th>
<th>Client/Customer rise tone</th>
<th>Service Provider rise-fall tone</th>
<th>Client/Customer rise-fall tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (female, female)</td>
<td>7</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 (female, female)</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 (female, male)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 (female, male)</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 (female, male)</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6 (female, male)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7 (female, male)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8 (male, female)</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9 (female, female)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 (male, male)</td>
<td>17</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11 (female, male)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12 (female, male)</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13 (female, male)</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14 (male, male)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15 (male, male)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16 (female, male)</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17 (male, male)</td>
<td>14</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18 (female, female)</td>
<td>7</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19 (female, male)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20 (female, male)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21 (male, male)</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22 (female, male)</td>
<td>10</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>103</td>
<td>64</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In Table 2, the use of the rise tone across the two sets of speakers can be seen to be distributed unevenly. No instances of the rise-fall tone were found in these
discourses which might simply be related to the fact that they are relatively short-lived and often routine discourses compared to the others examined in this study. The general picture is that the service provider uses the rise tone more frequently than the client/customer in a ratio of 5:3. This general pattern is found regardless of the gender of the service provider or the client/customer. It can therefore be argued that in this discourse type the service provider is the more dominant speaker in terms of the use of this tone. However, the service provider by no means monopolises the use of the rise tone. In four of the twenty-two service encounters (i.e. service encounters 1, 2, 12 and 22) it is the client/customer who chooses the rise tone more frequently. This might be due to the fact that the roles assigned to the participants in service encounters are not viewed as fixed in terms of who is the dominant speaker and this might be worth examining further in a cross-cultural study.

6.3 Informal office talk

Another discourse type in the business sub-corpus of the HKCSE is termed ‘informal office talk’. This discourse is conducted outside of a formal setting such as a workplace presentation, interview or meeting and the participants engage in work-related talk often interspersed with conversation-like topics unrelated to their daily work duties.

Table 3. Distribution of rise and rise-fall tones in informal office talk

<table>
<thead>
<tr>
<th>Informal office talk (HKC, NS)</th>
<th>Hong Kong Chinese Colleague rise tone</th>
<th>Native Speaker Colleague rise tone</th>
<th>Hong Kong Chinese Colleague rise-fall tone</th>
<th>Native Speaker Colleague rise-fall tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (male, female)</td>
<td>65</td>
<td>62</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2 (female, female)</td>
<td>31</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 (female, male)</td>
<td>39</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 (female, male)</td>
<td>62</td>
<td>45</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 (female, male)</td>
<td>128</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>325</td>
<td>154</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
As mentioned earlier, this discourse type was selected on the basis that there is not a designated dominant speaker. Again, the use of the rise-fall tone is so rare that it is not possible to draw any conclusions. However, Table 3 shows that in most of these discourses the dominant speaker was clearly the Hong Kong Chinese participant in terms of choosing to use the rise tone in a ratio of 2:1. This fact was unexpected and interesting and so the actual speakers were traced and a possible explanation emerged. At first, the fact that in all of the informal talks in which one of the participants emerged as dominant in terms of the use of the rise tone these dominant speakers were all female was thought to have possibly played a part, but then a more plausible explanation was found. In all of the informal office talks where the Hong Kong Chinese speakers dominate (i.e. informal office talks 2, 3, 4 and 5), the Hong Kong speakers are all senior to their native speaker colleagues in terms of the organisational hierarchy. The difference in status was greatest between the participants in informal office talk 5 which also has the most pronounced difference in usage. Whereas in informal office talk 1 the two participants are of equal status and the use of the rise tone is quite evenly spread. This suggests that informal office talk between colleagues of unequal status within an organisation continues to reflect the status differential between the participants even though they are not engaged in an institutionalised discourse with a designated dominant speaker. For those who never quite feel at ease when talking informally with their boss, this explanation will probably ring a bell. It would be interesting to explore this phenomenon in other cultural contexts to see whether or not Hong Kong is more rigidly hierarchical in this respect.

6.4 Placement interviews
This discourse type is another taken from the HKCSE’s sub-corpus of business discourses and involves Hong Kong Chinese students of Hotel Management being interviewed by hotel managers (both Hong Kong Chinese and native English speakers). The purpose of the interview is for the hotel manager to determine whether or not s/he wishes to accept the student for a placement of several months in the hotel and, if so, what department of the hotel to place the student in. The interviews are conducted in English as this is seen as an important part of assessing students who are going to need to be able to communicate in English with many of the guests. The interview is also a high stakes discourse as the experience gained will
form a major part of the students’ resumés and many are offered jobs upon graduation at the same hotel. In Table 4, interviews 4, 8 and 10 are conducted by native English speaker managers and the rest are conducted by Hong Kong Chinese managers.

Table 4. Distribution of rise and rise-fall tones in placement interviews

<table>
<thead>
<tr>
<th>Interviews (interviewer, interviewee)</th>
<th>Interviewer rise tone</th>
<th>Interviewee rise tone</th>
<th>Interviewer rise-fall tone</th>
<th>Interviewee rise-fall tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (HKC female, female)</td>
<td>38</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 (HKC male, female)</td>
<td>38</td>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3 (HKC female, female)</td>
<td>73</td>
<td>29</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4 (NS male, female)</td>
<td>31</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 (HKC male, female)</td>
<td>15</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6 (HKC male, female)</td>
<td>76</td>
<td>40</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7 (HKC male, female)</td>
<td>30</td>
<td>17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8 (NS female, female)</td>
<td>30</td>
<td>36</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>9 (HKC male, male)</td>
<td>41</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 (NS male, female)</td>
<td>73</td>
<td>37</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>11 (HKC female, female)</td>
<td>49</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>494</td>
<td>244</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

Interviews of this kind have clearly delineated institutional roles for the participants and these are confirmed by the findings in Table 4. The findings show that it is the interviewers, as the designated dominant speakers, who are more likely to choose to use the rise tone in a ratio of 2:1 to exert dominance and control in the discourse (with the exception of interview 8 in which the interviewee used the rise tone more frequently). This ratio is the same as for informal office talk and, again, while demonstrating that the interviewers use these tones twice as often as the interviewees it can not be said that they completely monopolise them. The use of the rise-fall tone, while still infrequent, occurs relatively more frequently in this discourse type. The rise-fall tone is used mostly by the interviewers and typically occurs when the interviewer responds to some unexpected information provided by the interviewee. Again, the gender and first language of the speakers do not appear to have a bearing on the use of these tones.

6.5 Business meetings
The meetings analysed are all formal business meetings taken from the sub-corpus of business discourses of the HKCSE. The meetings are formal in the sense that they all had an agreed agenda with a chair responsible for the progress of the meeting. Meetings 1 and 2 were chaired by Hong Kong Chinese and the remainder by native English speakers.

Table 5. Distribution of rise and rise-fall tones in business meetings

<table>
<thead>
<tr>
<th>Meetings (chair, members)</th>
<th>Chair rise tone</th>
<th>Members rise tone</th>
<th>Chair rise-fall tone</th>
<th>Members rise-fall tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (HKC female, 1 female + 1 male)</td>
<td>53</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 (HKC female, 3 females + 4 males)</td>
<td>62</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 (NS male, 2 females + 6 males)</td>
<td>125</td>
<td>44</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4 (NS male, 2 females + 5 males)</td>
<td>89</td>
<td>36</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>329</td>
<td>112</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 5 shows that in every business meeting the chair chooses to employ the rise tone more frequently than the meeting members in an overall ratio of 3:1. Of the discourse types analysed so far, business meetings display the greatest disparity between the participants when it comes to the use of the rise tone. This is the case across gender and first language differences. However, even the chairs of formal business meetings do not monopolise this tone to the exclusion of the other discourse participants. In the business meetings examined the occurrence of the rise-fall tone is very rare and, again, its scarcity makes its use difficult to comment upon.

6.7 Academic supervisions

The academic supervisions analysed come from the sub-corpus of academic discourses of the HKCSE. They are all two-party discourses involving an academic staff member (either a female Hong Kong Chinese or a female native English speaker) supervising the research study of a Hong Kong Chinese university student (either undergraduate or postgraduate). In Table 6, Hong Kong Chinese are the supervisors
in supervisions 4, 5 and 7 and in the remainder the supervisors are native English speakers.

**Table 6. Distribution of rise and rise-fall tones in academic supervisions**

<table>
<thead>
<tr>
<th>Supervisions (supervisor, supervisee)</th>
<th>Supervisor rise tone</th>
<th>Supervisee rise tone</th>
<th>Supervisor rise-fall tone</th>
<th>Supervisee rise-fall tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (NS female, male)</td>
<td>62</td>
<td>14</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2 (NS female, male)</td>
<td>185</td>
<td>39</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>3 (NS female, male)</td>
<td>50</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 (HKC female, male)</td>
<td>126</td>
<td>12</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>5 (HKC female, male)</td>
<td>60</td>
<td>9</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6 (NS female,female)</td>
<td>45</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7 (HKC female, female)</td>
<td>237</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>765</strong></td>
<td><strong>117</strong></td>
<td><strong>10</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

From Table 6, it can be seen that it is in this discourse that the pattern of rise and rise-fall tone use most closely conforms to Brazil’s description of their use in institutionalised discourses with a designated dominant speaker. In all of the academic supervisions it is the supervisor who chooses to use overwhelmingly the rise tone in a ratio of 6.5:1. For the first time, it might be argued that the designated dominant speaker monopolises the use of this tone. In some of the supervisions (i.e. supervisions 4, 6 and 7), the use of the rise tone is almost ten times more frequent for the supervisor than for the supervisee. While the use of the rise-fall tone is infrequent, it occurs more frequently in this discourse type than in any of the others examined and it is only used by the supervisors. Most of the rise-fall tones occur when the supervisor and supervisee are discussing something which has been unclear from the supervisor’s point of view. At the time that the problem is resolved and understanding is achieved, the supervisor’s overt use of the rise-fall tone signals it.

7. **Speaker distribution of rise and rise-fall tones across discourse types**

It is probably simplest to present the findings with regard to the use of the rise tone from across the six different discourse types on a continuum (see Figure 2). At one end of the continuum, the use of the rise tone is evenly spread between the discourse
participants (i.e. 50:50 in a two-party discourse) and at the other extreme end of the continuum, the use of the rise tone is entirely monopolised by a designated dominant speaker (i.e. 100:0).

placement
interviews
informal
office talk business
meetings
service
encounters academic
supervisions
conversations

50:50 67:33 75:25 85:15 100:0

Figure 2. Distribution of the rise tone across discourse types

Based on the findings in this study using data drawn from the HKCSE, each of the discourse types is plotted on the continuum in Figure 2. Conversations are at one extreme end where the use of the rise tone is chosen from equally by participants enjoying equal status. As we move towards the other end of the continuum, we find that the degree to which designated dominant speakers use the rise tone more frequently than the other discourse participants steadily increases. The first discourse type on the continuum is the service encounter, followed by placement interview and informal office talk, next is the business meeting and, finally, academic supervision which is the furthest removed from conversation in this respect. Furthermore, we have found no evidence in the data examined that either gender or first language play a role in this pattern of intonation behaviour.

With regard to speakers’ use of the rise-fall tone, it is more problematic to make similarly bold claims simply because its occurrence is extremely infrequent, which concurs with Brazil’s (1997: 86) claim that the rise-fall tone is by far the least frequent tone chosen by speakers. The very infrequent occurrence of the rise-fall tone means that in effect the assertion of dominance and control through the speaker’s tone choice is essentially achieved by choosing the rise tone.
However, two observations can be made about the speaker choice of the rise-fall tone. First, in many of the discourses examined in the HKCSE the choice of using the rise-fall tone is simply not exercised by the speaker. The rise-fall tone seems to occur more frequently in certain discourse types, namely placement interviews and academic supervisions. In both cases it was used almost exclusively by designated dominant speakers. A possible explanation for its higher occurrence in the placement interviews is that these discourses involve complete strangers interacting and exchanging detailed information which might be more likely to result in the kinds of local contexts in which the choice of the rise-fall tone would be chosen. Similarly, academic supervisions are a discourse type with an imbalance in terms of knowledge involving an expert and a novice exchanging ideas which are possibly new and quite complex. In other words both of these discourse types can afford more situations where the designated dominant speaker may choose to realign both her/his own world view and that of the hearer in an overt and dominant fashion. The second observation is that the effect of choosing to use a rise rather a fall-rise tone versus the effect of choosing to use a rise-fall instead of a fall tone is probably different. While the effect of choosing to use the rise tone is probably cumulative in that the isolated use of a rise tone by a speaker might pass unnoticed whereas repeated use might be perceived by the hearer as the assertion of dominance and control. This is unlikely to be the case in the use of the rise-fall tone. The reason for this is simply because it occurs so rarely that its use is almost certainly not cumulative, and so each occurrence has a greater weighting in terms of asserting dominance and control than an individual occurrence of the rise tone. This claim is worth investigating further.

A word of caution is needed at this point. While Brazil (1997: 82-98) argues that the use of the rise and the rise-fall tones is made by speakers asserting dominance and control at certain points in the discourse, there are, of course, many other ways in which speakers can exert dominance and control in spoken discourse. The use of the rise and the rise-fall tones is only one contributing element to such behaviour at a local level and it should not be viewed as either the major or the determining factor.

8. Conclusions
The analyses have shown that the speakers in each of the six discourse types exhibit different patterns of behaviour in their use of the rise and the rise-fall tones depending on their roles and the discourse type. In all of the discourse types examined, the
designated dominant speaker, where there is one, has been consistently more likely to choose the rise and the rise-fall tones and, in so doing, exercise dominance and control. These findings confirm the claim made by Brazil (1997: 82-98) that in certain kinds of discourse, the right to choose the rise and the rise-fall tones is constrained by speaker roles. However, it is also clear from the findings that there are degrees of dominance and control from one discourse to another. It would appear, for example, that the role of the academic supervisor might be one of greater dominance and control than that of, for example, the placement interviewer with regard to choosing to use these tones. This, it is argued, suggests that the extent of dominance and control vested in the designated dominant speaker is not fixed but rather seems to vary across discourse types. In other words, there is a continuum with conversations at one end in which the power relationship is equal and then other discourse types which have a designated dominant speaker can be plotted on the continuum depending on the extent of the power difference that is manifested in the speakers’ roles. Also, while no discourse type revealed a designated dominant speaker with a complete monopoly on the use of these tones, there does seem to be a connection between the use of the rise and the rise-fall tones and the participant role of designated dominant speaker. Lastly, there is no evidence to suggest that the Hong Kong Chinese and native English speakers in the HKCSE diverged with respect to their usage of these tones, both sets of speakers regardless of gender exhibited similar behaviour in terms of their tone choices in the data examined.

Future steps in the ongoing investigation into the role of intonation in asserting dominance and control would be to examine why the trends described in this paper are taking place through a qualitative study of the data, particular in terms of the uses of the rise and the fall-rise tones by Hong Kong Chinese and native English speakers across discourses types. It would also be interesting to investigate whether there exists a threshold English proficiency level below which non-native speakers do not exhibit similar discourse intonation patterns to native speakers of English. Further research can also examine the use of all five tones in discourse intonation – fall-rise, rise, fall, rise-fall and level tones (Brazil 1997) across a wide variety of discourse types in the HKCSE.

1 Throughout the HKCSE, Hong Kong Chinese (HKC) speakers are identified by lower case letters and native speakers of English (NSE) by upper case letters. Females are denoted by the letters ‘a’ (HKC) and ‘A’ (NSE), and males by the letters ‘b’ (HKC) and ‘B’ (NSE).

2 The letter u indicates that the tone choice, if any, is unclear and cannot be transcribed.
Acknowledgements

The work described in this paper was substantially supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region (Project No. BQ 396). Thanks are due to Richard Cauldwell who has been consultant to the project with respect to the prosodic transcription of the data. The writers are also grateful to the anonymous reviewers for their very helpful comments.

References


Tognini-Bonelli, E. (2000). Il corpus in classe; da una nuova concezione della lingua a una

