The intonation of declarative-mood questions in a corpus of Hong Kong English: // ↘↗ beef ball // → you like //

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Abstract
In the English Department of the Hong Kong Polytechnic University we are compiling the Hong Kong Corpus of Spoken English. In the examination of our data we have found that the ways in which the two sets of participants (i.e. Hong Kong Chinese and native speakers of English) ask questions share some similarities, but also differ in a number of respects. It seems, for example, that the Hong Kong Chinese have a stronger tendency to ask questions by means of declarative-mood questions, and the intonation used to achieve this indirect question form is examined in this paper and compared with the native speakers in the data. The implications of the findings for learning and teaching the English language are explored.

Introduction

This paper reports on a study on discourse intonation in naturally-occurring conversations between non-native (Hong Kong Chinese, HKC) and native speakers of English (NSE). Specifically, the study investigates how HKC and NSE compare in their choice of intonation in declarative-mood questions (Brazil 1997: 100) in naturally-occurring conversations.

The data set examined in the study came from the 2-million-word (approximately 200 hours) Hong Kong Corpus of Spoken English (HKCSE) (Cheng and Warren 1999, 2000). The HKCSE is made up of four sub-corpora each comprising 0.5 million words: conversations, academic discourses, business discourses, and public discourses. The data analysed in this study are taken from the sub-corpus of conversations and are made up of 25 dyadic conversations, totalling 13 hours, involving 24 HKC (8 male and 16 female) and 25 NSE (19 male and 6 female).

The data are transcribed both orthographically and prosodically. While the orthographic transcription of spoken data is well

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established and the conventions quite well-known, the number of spoken corpora that are also prosodically transcribed is very small, a well-known exception being the London-Lund Corpus of Spoken English (Svartvik and Quirk 1980, Svartvik 1990), and the representation of prosodic features is less standardized. It is notoriously difficult and time-consuming to prosodically transcribe naturally-occurring data and it requires inter-rater reliability measures to ensure the quality of the transcription. Similarly, the identification of declarative mood questions is not an easy task and again requires inter-rater reliability processes to be put in place. In this research study, both the prosodic transcriptions and the identification of the declarative-mood questions were subjected to rigorous cross-checking involving three trained individuals.

Discourse intonation

Brazil's (1985 and 1997) discourse intonation system has been used to prosodically transcribe the data due to the primary concern with analysing our data in terms of discoursal, pragmatic, and intercultural communication phenomena. Discourse intonation can partly 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 starting assumptions in Brazil's theory of discourse intonation (1997) are that (a) intonation choices are not related to grammatical or syntactic categories (rather, they depend on the speaker's contextually-referenced categories) and (b) there is no systematic link between intonation and attitude (rather intonation choices made by a speaker are based on assumptions about each particular context of interaction). In the prosodic transcription system developed by Brazil (1997), speakers can select from four systems: prominence, tone, key, and termination (see Table 1 below, adapted from Hewings and Cauldwell 1997: vii). The tone system of discourse intonation is the focus of this paper and is highlighted in the table.

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 an informative item in that particular context. In terms of tones, speakers can basically select between 'referring' (fall-rise and rise) or 'proclaiming' (fall and 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, mid imposes no constraint, and low does not predict a response.

Table 1: Intonation systems and choices

System	*Choice*
Prominence	prominent/non-prominent syllables
Tone	rise-fall, fall, level, rise, fall-rise
Key	high, mid, low
Termination	high, mid, low

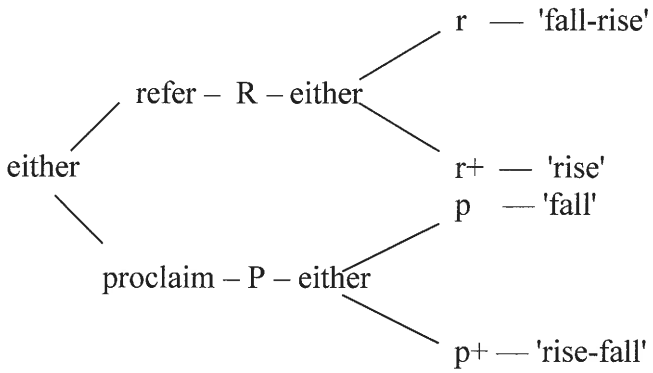
The study reported here focuses on the system of tone, as it is the choice of tone within the intonation system which is most discussed regarding the intonation of utterances performing an interrogative function. In spoken discourse, a speaker has at his/her disposal five tones to communicate locally situated meanings. The five tones are *r* tone ('fall-rise'), *r+* tone ('rise'), *p* tone ('fall'), *p+* tone ('rise-fall'), and *o* tone ('level'). The basic tone choice is between a referring tone (R) and a proclaiming tone (P) depending on whether the speaker assumes that this particular part of the discourse will (proclaiming tone) or will not (referring tone) enlarge the common ground between the participants (see Figure 1 below).

Once this basic choice has been made by a speaker, s/he has a further choice between two kinds of referring tones and two kinds of proclaiming tones. The finer distinctions (Brazil 1997: 67-81) between these tones are given as follows:

- *r* tone indicates that this part of the discourse will not enlarge the common ground assumed to exist between the participants
- *r+* tone reactivates something which is part of the common ground between the participants
- *p* tone shows that the area of speaker-hearer convergence is about to be enlarged

– *p+* tone indicates addition to the common ground and to speaker's own knowledge at one and the same time

Figure 1: Tone choices (Brazil 1997: 83)



Brazil (1997: 132-146) states that a fifth tone, the level tone, occurs in one of two situations. The first is when there is some kind of encoding problem resulting in a truncated tone unit. The second is when the orientation of the language spoken is 'oblique' (Brazil 1997: 133-139). This means that the speaker is not orienting to what is said as common ground or new, but is instead presenting the language as having no significance in any of the participants' worlds, except as an 'uninterpreted entity' (Brazil 1997: 133).

Declarative-mood questions

A declarative-mood question has a declarative form and, in the context of the discourse, an interrogative function. Identifying declarative mood questions is not always straightforward, even though they are a common question form, especially in conversations, where they make up 10% of all interrogatives (Biber et al. 1999: 212). Quirk et al. (1985: 814) describe 'declarative questions' as seeking verification and invariably said with rising intonation. This is something of an oversimplification, however, with regard to this question form and is potentially misleading. As Tsui (1994: 71-72) points out, citing the work of Brazil (1985), declarative-mood questions can be uttered with both rising and falling intonation depend-

ing on the function of a particular question. Tsui lists three main functions of this question form: seeking confirmation, asking for a response to a tentative assertion, and seeking information. All three functions are to 'elicit an obligatory response or its non-verbal surrogate' (Tsui 1994: 65). Similarly, according to Brazil (1997: 100-101), the significance of tone choice for declarative-mood questions needs to be examined against a background of non-intonational facts, namely the state of understanding existing between speaker and hearer. Generally speaking, if the *p* tone is used, the speaker is more likely to be asking the hearer to respond to the tentative assertion that he/she makes, and hence the declarative-mood question has an interrogative function of 'I don't know whether you do or not — please tell me' (Brazil 1997: 106). If the *r* tone is used, the speaker is 'projecting a context of interaction in which the context of the referring tone unit is common ground' (Brazil 1997: 101), and if the *r+* tone is used, the speaker is 'heard as proferring [sic] a tentative assessment of common ground and asking the hearer to concur with, or adjudicate with respect to, its validity' (Brazil 1997: 101).

Analysis of findings

All instances of declarative-mood questions in the 25 conversations were identified and analysed in terms of the distribution of tone choices between HKC and NSE. Subsequently the functions and significance of tone choices in actual instances of declarative-mood questions were examined and analysed against a background of non-intonational facts. It should be noted that the number of words spoken by each set of speakers is almost the same, allowing for direct comparisons to be made. Table 2 below shows the distribution of tones across the speakers in the 25 conversations examined.

Table 2: Declarative-mood questions: distribution of tones between HKC and NSE

	Total	r	r+	p	p+	o
HKC	138	5	39	71	2	21
	per cent (%)	*3.62*	*28.26*	*51.45*	*1.45*	*15.2*
NSE	96	4	30	59	2	1
	per cent (%)	*4.17*	*31.25*	*61.46*	*2.08*	*1.04*

The study shows that HKC and NSE are different in two main ways. First, the HKC have a stronger tendency to perform interrogative functions by means of declarative-mood questions. HKC used declarative-mood questions for expressing interrogative functions 44% more frequently than NSE. Second, the tone choices used to express declarative-mood questions by HKC and NSE are different in certain aspects. Proportionately, NSE used more *p* tones (61%) than HKC (51%) and marginally more *r*+ tones (31%) than HKC (28%). However, when actual instances were compared, HKC used four of the five tones, except for the *p*+ tone, more frequently than NSE. Among the five tones, *r*+ and *p* tones are much more frequently used by both HKC and NSE; *r* and *p*+ tones are very rarely used by both HKC and NSE; and the level tone (*o*) is almost exclusively used by HKC. For HKC, the frequencies of use of tones in descending order are *p*, *r*+, *o*, *r,* and *p*+; for NSE, the frequencies are *p*, *r*+, *r*, *p*+, and *o*.

The patterns of usage and tone choices observed can perhaps be explained in two ways. First of all, in Cantonese, questions are formed 'not by changes in word order as in English, but by a number of interrogative constructions and by sentence-final particles' (Matthews and Yip 1994: 310). The syntactic structure of the Cantonese question which is a declarative sentence may therefore explain the high frequency of declarative-mood questions used by the HKC. The second explanation may be the difference in cultural backgrounds between HKC and NSE. The prevalence of use of declarative-mood questions by HKC could be accounted for in terms of purported cultural attributes. In communication, the Chinese, in comparison with westerners, are said to emphasize more the maintenance of group harmony, or 'integration' (Bond 1986), cooperation, modesty, and humility (Markus and Kitayama 1991, 1994). Thus we may explain the use by HKC of the tone (*p*) which communicates only a tentative assertion and invites the hearer to respond to it, and also the higher tendency for the HKC in this study to use a tone (*r*+) which offers the hearer a tentative assessment of common ground and invites the hearer to indicate agreement or otherwise to its validity. Both of these tones indicate the HKC's concern with consensual opinions.

Let us now look in detail at how the various tone choices are realized in the conversations by examining actual instances of declarative-mood questions.

Use of the p *tone by a HKC*

In (1) the speakers are conversing about speaker B's attempts to find a replacement maid (maids are a fairly common topic among middle-class Hong Kong residents).

(1) [B: male British; a: female Hong Kong Chinese[1]]

1. a: so have you find a replacement for for the maid that you you mentioned
2. earlier that the one who didn't er er doing you know take care of the
3. B: sort of [(.) yes and no
4. a: [uh huh
5. a: why
6. B: because we we thought somebody was coming but maybe they won't now [so
7. a: [oh
8. we have to find yet another replacement
9. a: // *p* but she's still working there // *u* helping er er er //
10. B: no
11. a: I__
12. B: no
13. a: // *p* she's gone //
14. B: one is gone we have two because we both work full-time

(HKCSE)

On lines 9 and 13, Speaker a uses two declarative-mood questions to ask her friend about the whereabouts of the most recent replacement maid. As shown in the transcript, on both occasions she chooses *p* tone which has the communicative value that she is making no assumptions in her question as to whether what she is currently asking has or has not happened.

Use of the p *tone by a NSE*

In (2), the two friends are discussing Speaker a's upcoming participation in a charity walk and the route which involves a tunnel.

(2) [a: female Hong Kong Chinese; B: male British]

1. a: and then it's about one point two kilometre before you reach the erm (.) the tunnel
   [and then for the tunnel itself it's about four kilometre
2. B:[yea
3. B:// *o* and you (.) // *p* you're walking through the tunnel //
4. a:we didn't we didn't we
   [just use our er our ima- imagination yea
5. B:[yea
6. [we just pretend
7. B: // [*p* the the the the actual walk // *p* will go through the tunnel//
8. a:right yea

(HKCSE)

On lines 3 and 7, Speaker B asks his colleague if she will be walking through the tunnel. This is achieved using a declarative-mood question on each occasion. Both times he uses *p* tones which have the communicative value that he does not know whether the walk will or will not go through the tunnel. Speaker a first answers that they just pretended as it was a practice run for the real event, causing Speaker B to repeat the question in terms of the actual walk.

Use of the p *and* r+ *tones by a HKC*

Below, two friends are discussing the availability and price of local and imported lettuce.

(3) [B: male Australian; b: male Hong Kong Chinese]

1. B: oh it's okay
   [I mean you pay in Seibu or erm Wellcome you can buy local
2. b: [yea
3. lettuce for about three dollars
4. b: // p+ oh // r+ you bought // o from (.) // p you bought from Seibu //
5. B: mhmm
6. b: // r+ you find it very good //
7. B: yea
8. b: yea

(HKCSE)

On lines 1 and 3, Speaker B says that he pays three dollars for local lettuce in *Seibu or erm Wellcome* (two Hong Kong-based food

retailers) and Speaker b on line 4 asks a declarative-mood question with *p* tone to ask his friend if he bought the lettuce from Seibu. The communicative value of his choice of tone is that he does not know whether it was Seibu or not, and this is probably because although his friend named Seibu, he then added Wellcome and so there might be genuine uncertainty as to whether this is self-correction (i.e. Wellcome not Seibu) or the addition of Wellcome to the list of vendors of local lettuce. On line 6, Speaker b employs another declarative-mood question but this time with *r*+ tone with the meaning 'am I right in thinking' which seeks confirmation of the speaker's assumption.

Use of the r+ *and* p *tones by a NSE*

In (4) the speakers are talking about American versus Chinese eating habits and the topic turns to the eating of offal and then cats and dogs.

(4) [B: male American; b: male Hong Kong Chinese]

1. B: do I eat meat
2. b: meat yea not inside body just like er brain er the the heart er
3. B: oh no I don't eat that // [*r*+ you eat that //
4. b: [((laughs))
5. b: yea because I'm Chinese sorry I'm Chinese I will eat
6 this (.) all animals who is the with four foot sounds
7 good we'll eat just like dog er cat er
8. B: // *r*+ eat the dog//
9. b: no no no but
10. B: // *p* you don't eat dog //
11. b: yea

(HKCSE)

Speaker b has asked Speaker B if he eats offal and on line 2 he gives examples of what he means. On line 3 speaker B says that he does not and then uses a declarative-mood question to ask his friend if he eats *that* (offal). By choosing *r*+ tone, Speaker B is asking his friend to confirm his assumption which is done on lines 5-7 with the explanation that Chinese eat anything with four feet including dog and cat. This response causes Speaker B to ask another declarative-

mood question on line 8, again with *r*+ tone indicating that the speaker assumes that his friend does eat dog. This assumption is not inappropriate given that his friend is Chinese and given what he has just told B. However, his assumption is proved wrong when Speaker b responds *no no no*. Speaker B then asks a third declarative-mood question on line 10 to set the record straight and this time uses *p* tone with the meaning that he does not know whether or not his friend eats dog and asks Speaker b to tell him.

The o *tone*

In extract (5) the speakers are discussing the repairs carried out by Speaker B as a result of a leaking ceiling.

(5) [a: female Hong Kong Chinese; B: male Australian]

1. B: see it's all mouldy and wet
2. a: yes
3. (pause)
4. a: // *o* oh so you // *o* you purposely opened it // *o* and let them have a look or //
5. B: oh yea I opened it up for them
6. a: uh huh

(HKCSE)

On line 4, Speaker a uses a declarative-mood question to ask her friend about the logistics of showing the relevant authorities the problem. It can be seen that her utterance is truncated and spoken with level tone as a result of non-final listing.

Extract (6), taking place in a Chinese Dim Sum restaurant, shows the friends collectively deciding which dim sum dishes they will have for lunch.

(6) [a: female Hong Kong Chinese; B: male British]

1. a: // *r*+ you like glutinous rice//
2. B: yes yes sticky rice y[ea
3. a: [sticky rice (.) and then the
4. B: and do you want to get a (.) some a dish some vegetables or something
5. a: // *p* yeah // *r*+ vegetable // *o* you like //

6. B: yea vegetables
7. a: // *r* beef ball // *o* you like //
8. B: yeah get some of those too

(HKCSE)

On lines 1, 5, and 7, Speaker a employs a series of declarative-mood questions to ask her friend what he would like to eat. The first of these is spoken with *r*+ tone as she is reactivating common ground as Speaker B has just been trying to recall the name of glutinous rice in Cantonese and so she makes the assumption that he likes that form of rice. The next two declarative-mood questions have the same syntactic pattern. Speaker a first names the food in question with referring tones; *vegetable* is said with *r*+ tone as Speaker b has just mentioned vegetables as a possible dish to order, and *beef ball* is said with *r* tone as Speaker a assumes this dish is common ground (beef balls are a dim sum staple). Interestingly, the *you like* in both is spoken with *o* tone. There are two possible explanations as to why *o* tone is used on both occasions. The first is that the tone unit is in effect truncated due to the absence of a following-on object in this marked choice of word order. The second is that these are examples of a speaker adopting an 'oblique orientation' (Brazil 1997: 134) to what is said because *you like* is a routine and formulaic 'add on' to the naming of this dish which in itself could have served as the declarative-mood question. In other words, in this context, once the dish had been named, the *you like* is redundant and said with *o* tone. It is impossible to say conclusively which explanation fits these examples but they serve to illustrate the possible uses of *o* tone. However, whatever the explanation for the use of *o* tone might be, the hearer has no difficulty interpreting these utterances as declarative mood questions.

Collaborative construction of a declarative-mood question

A special kind of declarative-mood question takes place when a speaker encounters some kind of difficulty in his utterance and the hearer comes in and offers a possible utterance completion in the sense of 'is this what you want to say'. Extract (7) shows the HKC speaker completing his friend's utterance by way of a declarative-mood question.

(7) [B: male British; b: male Hong Kong Chinese]

1. B: [and er for every sale you get a commission
2. b: [but your company supply the products
3. B: // *p* yea // *o* [we get it from // *o* from //
4. b: [huh
5. b: // *o* from // *r* the client // *p* from the members //
6. B: yea our members also from other
7. [people anybody who wants to sell we don't
8. b: [uh huh
9. buy it (.) we just arrange the consignment

(HKCSE)

On line 3 Speaker B gets into trouble explaining where he gets his supplies from and Speaker b uses a declarative-mood question spoken with *p* tone which has the communicative value of 'I don't know whether you mean this or not — please tell me', which is perhaps also a more tactful choice of tone in such a context when a speaker is completing another participant's utterance.

Conclusion

The main finding has been not that the two sets of speakers use intonation differently when employing declarative-mood questions, with the exception of the level tone, but that the HKC use declarative-mood questions more frequently than the NSE. A previous study investigating use of English tag questions in conversations by speakers in the HKCSE found that the Hong Kong Chinese use English tag questions much less frequently compared to native speakers, in a ratio of 1:4 (Cheng and Warren 2001: 1436). Consequent to this finding, a question was proposed for further research: 'What do NNS say, and how do they say it, to obtain information, seek confirmation or emphasize what they are saying, if they are not doing it through the use of tags?' (Cheng and Warren 2001: 1437). The findings reported in this paper represent the first step towards addressing this question. Future studies intend to investigate other question forms used by the two sets of speakers in the HKCSE. This paper describes only the tone choices made by speakers in asking declarative-mood questions. It has not explored the relationship between the polarity of the declarative-mood questions and tone choice, but this will be included in a planned larger-scale study.

Further studies might also analyse the communicative value in declarative-mood questions of the other systems of discourse intonation, namely key, termination, and pitch level.

Implications for English language teaching

With respect to pedagogy, the main advantage of describing discourse intonation with Brazil's system, as pointed out by McCarthy (1991: 114), lies in the possibility to deal with the four different parts of the system individually, 'while not losing sight of either the sense of the importance of speaker choice and adjustment to the constantly changing state of play between participants in the talk'. Arguably, McCarthy's assessment has been borne out by the increasing number of listening and pronunciation publications for English language learners in recent years that are based on Brazil's system (see for example Bradford 1988, Brazil 1994, Hewings and Goldstein 1999, Cauldwell 2002, and Chun 2002). This paper would want to argue that a prosodically transcribed corpus such as the HKCSE would also have a twofold role to play in English language learning and teaching. Through analysing the intonation of the speakers in the corpus we will better understand discourse intonation and how it works across a variety of speakers and discourse types which will inform those in the field of English language teaching. The HKCSE also provides a rich source of naturally occurring examples for students to emulate, not just of NSE, but also of highly competent Hong Kong Chinese speakers of English. Having access to a very large number of naturally-occurring examples for learners and teachers to draw upon would also help to avoid the dangers of learning and practising discourse intonation devoid of context which Brazil (1997: 142) strongly warns against.

Note

1. In the HKCSE, Hong Kong Chinese are denoted with lower case letters and all other speakers with upper case letters.

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