purpose of labeling the F0 contours. The following chapter will present and discuss the findings of the study.

Chapter 4 Results and Discussion

4.0. Introduction

In this section findings about the different types of final intonations and interrogatives in Cantonese that were observed in the data are presented with their frequency count shown in Table 4.1 and Table 4.2.

4.1. Patterns of Sentence-final Intonations

There are six types of sentence-final intonations. They were: Rising, Falling Level, Invisible, Center Rise-Fall or Fall-Rise Final (Center RF/FR) and Unidentified Final Intonation. Five types are confirmed and one type, for just one case, remains as an unknown type in the Unidentified category (see Table 4.1).

Table 4.1
Types of Sentence-final Intonations

	Sentence-final	Number Found	% of Totals for	% of Total

	Intonation Type	for each Type		Types 1 and 2	for all 6 Types	
1	**Rising**	**102**				**43.78**
a	Regular Rising		56	54.90	24.03	
b	Rising-fall		29	28.43	12.45	
c	"U" Shape Rising		12	11.76	5.15	
d	Sharp Rising		5	4.90	2.15	
2	**Falling**	**80**				**34.33**
a	Regular Falling		62	77.50	26.61	
b	Falling-rise		6	7.50	2.58	
c	"n" Shape Falling		3	3.75	1.29	
d	Sharp Falling		9	11.25	3.86	
3	**Level**	**38**	**-**	**-**	**-**	**16.31**
4	**Invisible**	**8**	**-**	**-**	**-**	**3.43**
5	**Center RF/FR**	**4**	**-**	**-**	**-**	**1.72**
6	**Unidentified**	**1**	**-**	**-**	**-**	**0.43**
	TOTAL	**233**	**182**	**-**	**78.11**	**100.00**

4.1.1. Rising Final Intonations

Rising Final Intonations were the most frequently used patterns in the data. There were four sub-types of Rising Final Intonation patterns found in the data. The most frequently found pattern in this categoty was the Regular Rising, 54.9%. This was followed by Rising-fall, 28.43%; U Shape Rising, 11.76% and Sharp Rising, 4.9% as presented in Table 4.1.

4.1.1.1. Regular Rising Pattern-L-H%

As can be seen in Figure 4.1, the pitch rises from the initial pitch “B”, has a slight fall after reaching the peak on “H”. The difference between the highest pitch “H” and the final pitch “A” is less than 10 hertz.

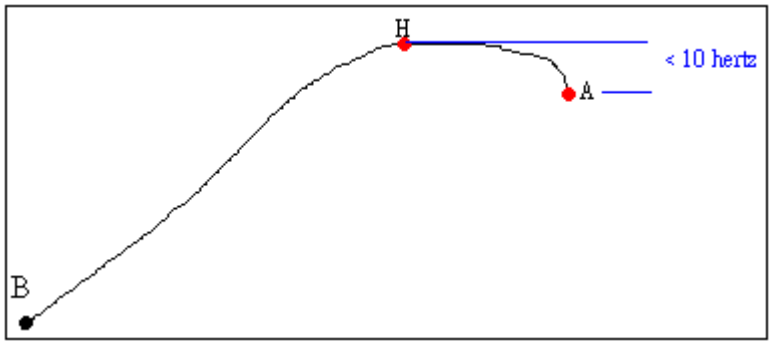


Figure 4.1
Regular Rising Pattern

4.1.1.2. Rising-fall Patterns-H*-L%

In Figure 4.2, the pitch rises from the initial pitch “B”, has a fall after reaching the peak on “H”. The difference between the highest pitch “H” and the final pitch “A” is more than 10 hertz. “A” must be 10 hertz above “B”.

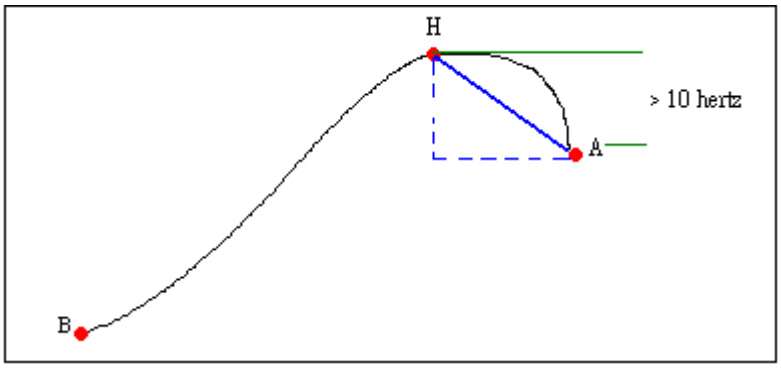


Figure 4.2
Rising-fall Pattern

4.1.1.3. “ U ” Shape Rising Patterns-H-L-H%

In Figure 4.3, “BL” is the falling part of pitch, while “LA” is the rising part. The difference between initial pitch “B” and final pitch “A” is more the 10 hertz. This type of rising pattern is normally seen in a single Cantonese word expression. For example, “wai3”-“Hello”, in answering telephone. It can be expressing doubt and uncertainty. The pitch pattern is alike an “U” shape.

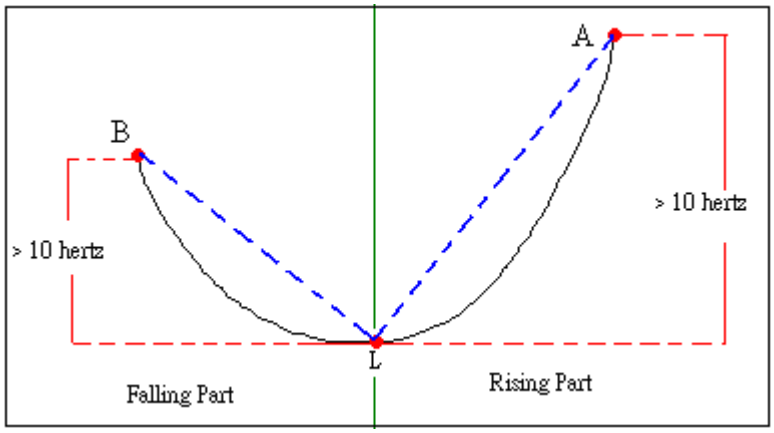


Figure 4.3
“ U ” Shape Rising Pattern

4.1.1.4. Sharp Rising Pattern-L+H*-H%

In Figure 4.4, a sharp rise stretches upwards right from the “L”, and after “H” the peak, it makes a relatively smaller sharp fall from “H” ending at “A”. Some of these sharp falls may reach more than 10 hertz. It should not, however, be over the lowest pitch point and at least 10 hertz above it.

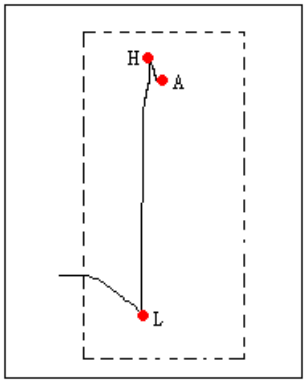


Figure 4.4
Sharp Rising Pattern

4.1.2. Falling Final Intonations

The four sub-types of Falling Final Intonation patterns totaled 80 out of 233 (34%) of the pattern found. Regular Falling patterns accounted for 77.5% of this group. There were 11.25% of Sharp Falling patterns; Falling-rise patterns contributed 7.5% and "n" Shape Falling patterns accounted for 3.75% of all the Falling Final Intonation patterns.

4.1.2.1. Regular Falling Pattern-H-L%

Figure 4.5, the difference from "B" to "A" should be more than 10 hertz. This falling pitch shows a consistent fall from the intial pitch to the final pitch.

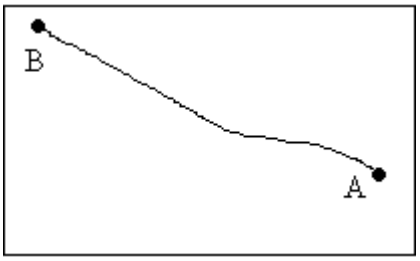


Figure 4.5
Regular Falling Pattern

4.1.2.2. Falling-rise Pattern-L*%

In Figure 4.6, the consistent fall reaches "L" which is the lowest pitch. It then rises from "L" to "A, the final pitch". "LA" can be more than 10 hertz but must at least 10 hertz lower than "B".

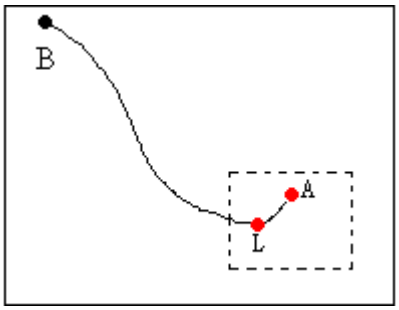


Figure 4.6
Falling-rise Pattern

4.1.2.3. Sharp Falling Pattern-L*+H-L%

In Figure 4.7, a Sharp Falling stretches downwards right from “H”, and after it reaches “L”, it makes a relatively smaller rising right from “L” and ending at “A”. The rise after the final pitch may reach more than 10 hertz. It should, however, be at least 10 hertz lower than “B”.

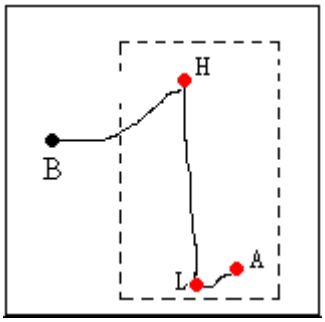


Figure 4.7
Sharp Falling Pattern

4.1.2.4. “ n ” Shape Falling Pattern-L-H-L%

In Figure 4.8, this pitch consists of two parts, a rising part and a falling part. “BH” is the rising part, while “HA” is the falling part. The final pitch, “A” should be at least 10 hertz lower than the initial pitch “B”

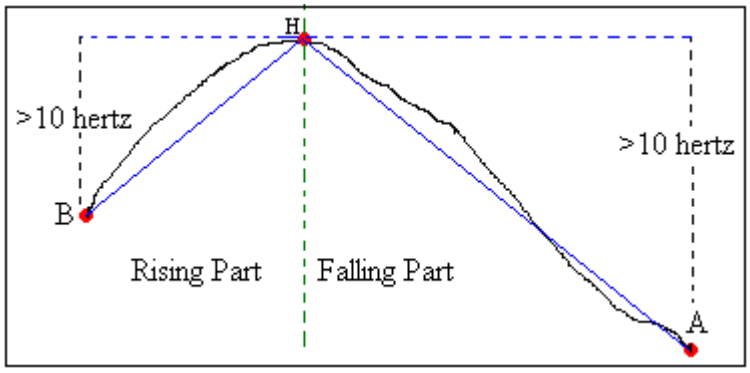


Figure 4.8
“ n ” Shape Falling Pattern

4.1.3. Level Final Intonation-L-L% or H-H%

In Figure 4.9, when the difference between the initial and final pitch is not more than 10 hertz, it is considered to be a Level Final Intonation.from the initial pitch “B” to final pitch “A”. The difference in hertz should not be more than 10. This pitch does not show an obvious curve.

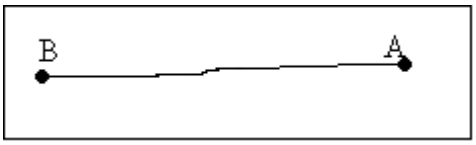


Figure 4.9
Level Final Intonation

4.1.4. Invisible Final Intonation

This is not a new final intonation pattern but rather a pitch pattern that is invisible or undetectable (no F0 trace), but is nevertheless audible and its existence can be seen in a spectrogram. This is a peculiar type of pitch whose pitch height is unable to be measured due to no F0 trace. This pattern is possibly due to the process of Manner of Articulation. As can be seen in Figure 4.10, the sentence-final syllable “aa4” is undetectable in the pitch graph (refer to 4.4.1.2.1).

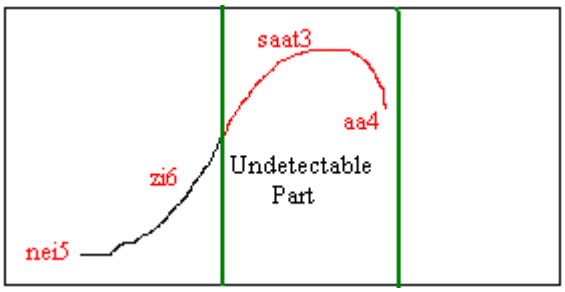


Figure 4.10
Invisible Final Intonation

4.1.5. Center Rise-Fall and Fall-Rise Final Intonation (Center RF/FR)

4.1.5.1. Center Rise-Fall Pattern Type 1

Figure 4.11 shows a center upward cone, “B-H-C”. The pitch starts from “A” and ends at “D”. Both “A-B” and “C-D” are rather level pitches. “H” serves as the highest pitch. The difference in hertz from “H” to “A” and from “H” to “D” can be more than 10 hertz in both instances.

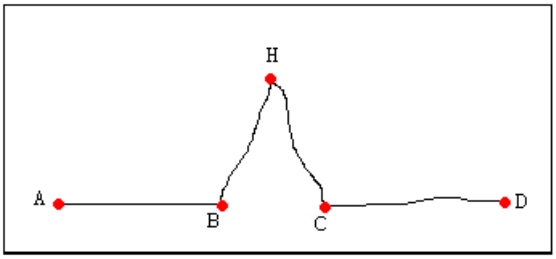


Figure 4.11
Center Rise-Fall Pattern Type 1

4.1.5.2. Center Rise-fall Pattern Type 2

In Figure 4.12, “A” to “B” and “C” to “D” show a falling pitch and a rising pitch respectively. “B-H-C” is a cone shape pitch pattern. “H” serves as the highest pitch. The difference from “H” to “A” or “H” to “D” can be less than 10 hertz in both instances.

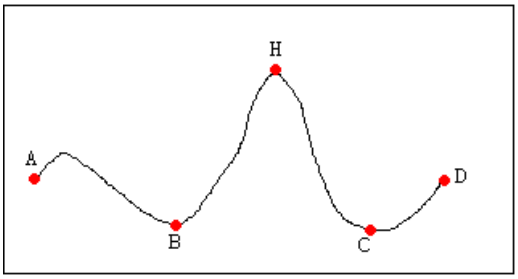


Figure 4.12
Center Rise-Fall Pattern Type 2

4.1.5.3. Center Fall-Rise Pattern

Figure 4.13 shows a valley in the center of the pitch with the pitch starting from "A" and ending at "D". "B-L-C" delineates the valley.

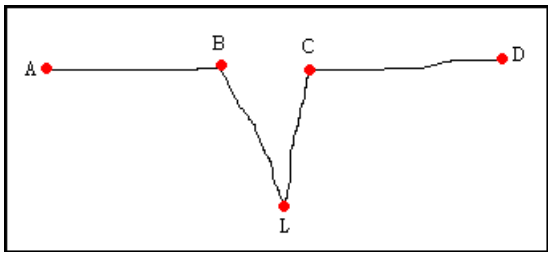


Figure 4.13
Center Fall-Rise Pattern

4.1.6. Unidentified type of Final Intonation

This type of final intonation is called "Unidentified" in this study due to its peculiar pattern and its lack of any similarities; and furthermore, with such a limited quantity identified, it is statistically unjustified (refer to extract 1635 on Appendix D p.113).

4.2. Types of Interrogatives in Cantonese

Seven types of interrogatives were found in the data. Table 4.2 below represents the frquency of different types of interrogatives in the data. According to the findings, Yes/No Interrogatives and Wh-Interrogatives are the two most frequently used interrogatives in the data. There is just under 1% difference between the Yes/No and Wh-Interrogatives; however, there is a significant difference when compared to the third most used interrogatives: the Rhetorical Interrogatives. The frequency in usage of the Yes/No Interrogatives is almost 100% more than Rhetorical Interrogatives. The simple structured Yes/No Interrogatives are used to ask for a decision from a listener. Wh-Interrogatives are used to request for specific information from the listener whilst the Rhetorical

Interrogatives show illocutionary acts. These three types of interrogatives are considered to be the most predominant interrogatives used in the data.

The four remaining types of interrogatives, namely: Tag, A-not-A, Elliptical and Disjunctive interrogatives, account for the remaining 27%. Tag Interrogatives has the highest usage amongst the four remaining types of interrogatives with 25 examples identified, making it the fourth most used interrogative. Disjunctive Interrogatives, with three examples, is the smallest contributor, amounting to just over 1% of the total. The Elliptical Interrogatives, with 12 examples, are used four times more frequently than Disjunctive Interrogatives. A typical type of interrogative used in Cantonese- the A-not-A Interrogative, (as indicated by an affirmative and its negative counterpart) has the fifth highest usage frequency: the 23 examples being just under 10% of the findings.

Table 4.2
Types of Interrogatives in Cantonese

	Interrogative Type	**Number Found**	**% of Total**
1	Yes/No	68	29.18
2	Wh-	66	28.33
3	Rhetorical	36	15.45
4	Tag	25	10.73
5	A-Not-A	23	9.87
6	Elliptical	12	5.15
7	Disjunctive	3	1.29
	TOTAL	**233**	**100**

4.2.1. Yes/No Interrogatives

This type of interrogative is most frequently used in the data. This may be due to its simple syntactic structure, consisting of a statement attached to one or more SFP(s) with a Rising Final Intonation. In extract 3532 below, SFP "aa4" attached to the sentence final, is not likely to be replaced with its equivalent when translated into English but is more likely to be substituted by verbs like "Do" or "To be". Yes/No Interrogatives in Cantonese do not usually involve word ordering change and inserting (refer to Chapter 2, section 2.6.1.).

3532
m4 seon3 aa4? - You do not believe? *Negator Believe SFP*

There are some key words that may help to indicate this type of interrogative as suggested in extract 1700 below. As can be seen, another key word helps to indicate a Yes/No Interrogative is "m4 hai6", which can be translated as "to be not" in English.

1700
nei1 go3 zung6 [**m4** **hai6**] nei5? – **Is/was** this **not** you? *This numeral still [negator affirmative] you* *classifier*

SFPs serve as strong indicators to identify Yes/No Interrogatives. The findings suggest "aa4" most frequently functions as the SFP in this type of interrogative.

There are also Yes/No Interrogatives are without a SFP. In extract 4301, judging by its syntactic form, the utterance can be either a statement or an interrogative. This utterance does not have a Yes/No Interrogative key word or a SFP. In a situation of such, sentence-final intonation plays a crucial role to distinguish a statement from an interrogative. The findings suggest that, usually a Rising Final Intonation indicates an interrogative.

4301 hai6 siu2 baak6 maat6 ?- Little white socks ? *Affirmative little white socks*

Table 4.3 shows the final intonations present in the findings of Yes/No Interrogatives. As can be seen in Table 4.3, the findings suggest that Yes/No interrogatives tend to occur more with Rising Final Intonations, which account more than half of the total. Nonetheless, the number of Falling Final Intonations (26) does account noticeably for 38% of the total while the remaining six examples constitute almost 9%.

Table 4.3
Types of Final Intonations in Yes/No Interrogatives

	Type of Final Intonation	**Number Found for each type**	%
1	Rising	36	52.94
2	Falling	26	38.24
3	Level	3	4.41
4	Invisible	3	4.41
5	Center RF/FR	0	0.00
6	Unidentified	0	0.00
	TOTAL	**68**	**100.00**

4.2.2. Wh- Interrogatives

Wh-Interrogatives have the second highest frequency count in the data. This type of interrogative is identifiable by the Cantonese Wh-words. A few Wh-words from the findings are suggested: “dim2”; “gei2”; “bin1 dou6”; “bin1 wai6”; “zou6 mat1 je5”; “ne1”. As can be seen, “dim2” in extract 4035-2, serves as one of the Wh-key words in Cantonese

can be translated into English as “How” or “Why”. Along with the other Wh-words it serves as a functional morpheme. Normally it is placed before a verb or an adjective. However, when it appears as a single word “dim2” may not be considered as a Wh-word.

4035-2
nei5 **dim2** zi1 gaa3? - **How** (do) you know? *You Wh-word know SFP*

In extract 5742. “gei2” is placed before the noun “time”. While extract 1436, “gei2” is placed before an adjective, “long” in terms of time. It can be translated as “How”.

5742
keoi5 **gei2** si4 soeng5 lai4 aa4? - **When** (will) he come over? *He Wh-word time comes over SFP*

1436
gaau2 **gei2** noi6 aa4 ? - **How** long (does) it take? *do / make Wh-word long(time) SFP*

In extract 2716, “bin1” is a Wh-word, the findings suggest, it is attached to a numeral classifier (NC) in Cantonese. If the NC indicates a place or a location, “bin1” is translated as “Where”. “bin dou” means “Where”. Native Cantonese speakers sometimes omit the NC as a less formal way of making an inqury for a direction or location.

2716
zik1 hai6 **bin1** **dou6** aa4 - **Where** are you exactly? *It means Wh-word NC SFP*

In extract 2254-2, “wai6” is a NC for person. When attached to “bin1”, “bin1 wai6” means “who” or “which one”.

2254-2					
nei5	wan2	**bin1**	**wai6**	aa4? - **Who** are you looking for?	
you	*looking for*	*Wh-word*	*NC*	*SFP*	

In extract 0635, “zou6 mat1 je5” is actually an interrogative phrase. It can be loosely translated as “What is the matter?”. Native speakers sometimes omit “zou6”, which literally means to do or to make. “mat1” literally means “what”. Sometimes native speakers also omit the “je5”, which literally means “thing(s), matter(s), or incident(s)”

0635				
zou6	**mat1**	**je5**	aa4?	-**What** (is the) matter?
do / make	*Wh-word*	*thing(s)*	*SFP*	

In extract 4715-2, “zou6 mat1” “做乜 ”-“why” is placed before a verb: sik6 (eat/eating). It is also possible when “zou6 mat1” “做乜 ” is placed before a determiner, for example, “gam3” (in English “such”, “so”) and followed by an adjective; into a “zou6 mat1+determiner+adjective” form. It can be translated as “why so+adjective”; for example, “zou6 mat1 gam3 gwai3”- “why (it is/they are) such expensive”.

4715-2						
nei5	**zou6 mat1**	sik6	go3	daan6 gou1	aa4?	- **Why** (do) you eat the cake?
you	*Wh-Phrase*	*eat*	*NC*	*cake*	*SFP*	

In 1110, “ne1” has various meanings when it functions as a Wh-word. It can be translated as “where” or “how about” depending on the context. In example 1110, ‘ne1’ is used in a context where a group of men were looking for their friend who is suddenly missing. ‘ne1’ in this context is likely to be translated as “Where”. “ne1” can also be

attached to the sentence final when someone is making a suggestion, hence ‘ne1’ can then mean “how about”, for example, “hung4 sik1 ne1?”- “How about red color?”

1110 a Caai4 **ne1**? - (**Where is**) a Caai4 *A (a name) Wh-Q.Marker*

The types of final intonations patterns found in Wh-Interrogatives are shown in Table 4.4. Amongst the five types of final intonations found in the Wh-Interrogatives, the Falling Final Intonation occured most frequently in the data. Nonetheless, the Rising Final Intonation contributes a substantial 29% of the total whilst the rest of the final intonations contribute approximately 27%. Level Final Intonations register in 16 examples out of 66, making it the third most used final intonation in this type of interrogative. Invisible Final Intonation and Center RF/FR Intonation with one example each, amount to just over 3% of the total when taken together.

Table 4.4
Types of Final Intonations in Wh-Interrogative

	Type of Final Intonation	**Number Found for each type**	%
1	Rising	19	28.79
2	Falling	29	43.94
3	Level	16	24.24
4	Invisible	1	1.52
5	Center RF/FR	1	1.52
6	Unidentified	0	0.00
	TOTAL	**66**	**100.00**

4.2.3. Rhetorical Interrogatives

Rhetorical Interrogatives do not expect formal answers (Burton 1997-2001: para 1). Sometimes it may be difficult to decipher the connotations of this type of interrogative if taken literally. It can be easily mixed up with Yes/No Interrogatives or even statements. This is due to the fact that they can share the same syntactic structures. There are a few facts that need to be taken into account when categorizing them: the context of the utterance; the key word; and the SFP.

4.2.3.1. Context

The example in extract 2329 is a repeated interrogative spoken by a listener. He is told that something he wants cannot be found. As he is startled by the result of the search, he repeats what he is told as a statement, and it becomes a Rhetorical Interrogative. It shows the listener is doubtful.

2329			
wan2	m4	dou3?	- Can not find (it)?
Look (for)	*negator*	*Complement*	

The example in extract 3401 is a statement-like interrogative, which is hard to categorize without knowing the context and its final intonation. It can be a statement, a Yes/No Interrogative or a Rhetorical Interrogative. The Rising Final Intonation indicates that the utterance may not be a statement. Knowing the context, in which the speaker is actually talking to himself, it is clear that he is not seeking for an answer or opinion.

3401:			
hai6	siu2	baak6 maat6 ?- (They are) little white socks?	
Affirmative	*little*	*white*	*socks*

4.2.3.2. Key Words

The findings suggest that certain key words may help to identify Rhetorical Interrogatives in Cantonese. In example 2030, the literal translation for [zung6 m4] "仲唔" is [still (negator)]. The negator can stand for any negative verbs, such as "(to be) not", "do not" and "no". In Cantonese, a Rhetorical Interrogative can be converted into a Yes/No Interrogative by changing the negator "m4" to negator "mei6"→ [zung6 mei6] which means "have not yet". It should be noted that, even by itself, [zung6] can function as a key word in Rhetorical Interrogatives (see example 1635). It performs exactly the same function as [zung6 m4] but implies an opposite meaning: something is supposed to have been done but so far has not been done.

2030

[Zung6 m4] zik1hak1 fong3 dai1 nei5 ge3 bo1 lo4 bing1?
[Still negator] immediately put down your Pineapple (juice) iced?

-Still not putting your iced Pineapple (juice) down immediately?

4.2.3.3. SFP "me1" "咩"

According to Huang (1986, cited in McGinnis 1990:22), the Cantonese interrogative morpheme for rhetorical purposes can be transcribed as "mE".

4109-2

gam3 dak1 ji3 me1 - (really) That interesting?
that interesting SFP

Extract 4109-2, one of the emotions that is implied by the SFP "me1" "咩" is perfunctory. The questioner already has an answer in his mind but just does not wish to be rude by objecting to the idea of the listener. The reaction of the questioner can be regarded as a lack of interest in this boring conversation.

4.2.3.4. SFP “zek1” (jek5) “ 啫 ”

Another SFP that functions as an indicator for the Rhetorical Interrogatives is “zek1” or “jek5” depending on the different sources. In extract 5944, when the addressee is accused of eating meat, he denies it by replying with a Rhetorical Interrogative which includes “zek1”.

5944 ngo5 dim2 wui5 sik6 juk6 zek1- How (would) I take meat? *I how eat meat SFP*

Table 4.5 shows the types of final intonations found in Rhetorical Interrogatives. As can be seen in Table 4.5, of the 36 examples of Rhetorical Interrogatives, over 58% had Rising Final Intonations. The findings show that Rising Final Intonations occur most frequently in Rhetorical Interrogatives. Falling Final Intonations account six which is three-and-a-half times less than the Rising Final Intonations. Level Final Intonations account for just under 17% and are the third highest. The remaining final intonations: the Invisible, the Center RF/FR and the Unidentified Final Intonations account for just over 11%.

Table 4.5
Types of Final Intonations in Rhetorical Interrogatives

	Type of Final Intonation	**Number Found for each type**	%
1	Rising	21	58.33
2	Falling	6	16.67
3	Level	5	13.89
4	Invisible	2	5.56
5	Center RF/FR	1	2.78
6	Unidentified	1	2.78
	TOTAL	**36**	**100.00**

4.2.4. Tag Interrogatives

Besides seeking for answers, Cantonese Tag Interrogatives also perform the function of seeking attention from the listener and even asking for confirmation. Similar to Yes/No Interrogatives, question tags in Tag Interrogatives are chosen according to the emotion that a speaker wishes to express. The emotions of the speaker strongly affect the choice of the question tags being used. The syntactic structure of Tag Interrogatives can be generally divided into two types: firstly, Statement/Declarative+Tag, and secondly, Interrogative +Tag. The results indicate 12 of the 24 Tag interrogatives had a single tag.

4.2.4.1. Statement/Declarative +Tag

In extract 3419, "maa3" "嘛 " indicates some old information shared in the coversation. The speaker chooses "maa3" indicating that he knows there is some left-over soup in the refrigerator without being reminded.

3419 syut3 gwai6 zung6 jau6 cam4 maan5 jam3 zing6 go3 bou1 tong1 **maa3**? *Refrigerator still have yesterday night drink left that NC soup SFP* -There is still some soup left from last night, right?

4.2.4.2. Interrogative +Tag

In extract 5154-2, the interrogative actually ends with two SFPs: "laa1" and "huh". The latter functions as a question tag. As can be seen, there are two parts to this Tag Interrogative. "cat1 dim2 bun3 laa1" is the complete interrogative, and the question tag "huh" constitutes the second part of this interrogative. The syntactic structure of this type of Tag Interrogative is, therefore, "Interrogative +Tag". Nine out of the dozen single word Tag Interrogatives in the data had "huh" as their question tags. Taking the contexts of these nine cases into consideration, it can be concluded that they tend to show that the speaker is seeking confirmation from the listener.

5145-2 cat1 dim2 bun3 laa1 **Huh**? - (How about) 7:30, **huh**? *Seven o'clock half SFP Question Tag*

Extract 4040 shows a cluster-word question tag: "hai6 waa4" "係哗", which consists of two words used together as an interrogative tag. These question tags normally come in pairs. They can be formed by combining both SFPs or a free morpheme with a SFP.

4040 gong2 haa5 siu3 zek1 **hai6 waa4**? - (You) just joking, **right**? *Talk just joke SFP clusters Question Tag*

Table 4.6 below shows the types of final intonation patterns found in Tag Interrogatives. Table 4.6 shows that the most common type of final intonation chosen is the Rising Final Intonation (44%) followed by Level Final Intonation pattern (32%). Falling Final Intonations account for 12% of the total, Center RF/FR Intonations amount to 8% whilst the solitary Invisible Final Intonation is the smallest contributor accounts for just 4%.

Table 4.6
Types of Final Intonations in Tag Interrogatives

	Type of Final Intonation	**Number Found for each type**	%
1	Rising	11	44.00
2	Falling	3	12.00
3	Level	8	32.00
4	Invisible	1	4.00
5	Center RF/FR	2	8.00
6	Unidentified	0	0.00
	TOTAL	**25**	**100.00**

Table 4.6 shows that the most common type of final intonation for Rising Final Intonation (44%) followed by Level Final Intonation pattern (32%). Falling Final Intonations account for 12% of the total, Center RF/FR Intonations amount to 8% whilst the solitary Invisible Final Intonation is the smallest contributor accounts for just 4%. But no conclusion can be made based on this small percentage occurance.

4.2.5. A-not-A Interrogatives

An A-not-A Interrogative is a result of combining an affirmative statement and a negative statement, see Examples 4.1 and 4.2 below. A negative statement is formed by simply inserting a negator “唔” “m4” before the verb in an affirmative sentence, such as “zung1 ji3”. Example 4.3 shows an A-not-A Interrogative which can be used when asking if someone likes the color red.

Example 4.1

nei5 **zung1 ji3** hung4 sik1 – You **do like** red color. (Affirmative) *You like red color*

Example 4.2

nei5 **m4 zung1 ji3** hung4 sik1 – You **do not** like red color. (Negative) *You negator like red color*

Example 4.3

nei5 [**zung1** (**ji3**) **m4 zung1 ji3**] hung4 sik1 - Do you **like** (**not like**) red color? *You [like negator like] red color*

The counterpart, shown in square brackets, functions an indicator to an A-not-A Interrogative. The A-not-A counterparts can be located either after the subject “nei5” (you), or at the beginning of the sentence, or at the end. In the latter instances the subject “nei5” is

placed after the object “hung4 sik1” (red color) and a SFP is added. It should be noted in this case that the second word of “zung1 *ji3*” is optionally omitted in the A-not-A counterpart. This can be due to economy of speech. The second syllable of a disyllabic verb, modal or adjective before the negative morpheme can be optionally omitted. Li and Thompson (1981, cited in Law 2001:296) suggest that this is influenced by southern dialects such as Cantonese.

An example of this interrogative, there is a counterpart of which its negator is not “m4”. “jau5” (possessing, normally to be translated as “to have”) because it does not fall under the grammatical categories mentioned above. Instead of using the negator “m4” to negate “jau5”, “mou5” (not have) is used as the negator. The mou (not-have) in jau-mou (have-not-have) is an incorporation of negation and the morpheme jau (have). It is equivalent to the Mandarin A-not-A counterpart “*you-mei-you*” (Law 2001:303).

In casual spoken Cantonese, there is a tendency to use “jau5 mou5” more frequently as the counterpart for A-not-A Interrogatives. In formal speeches, songs, or poems, it is not uncommon to hear “jau5-mut6-jau5” (have-not-have), which is exactly the same as “*you-mei-you*” in Mandarin; whereas “mut6” is a formal register of the negator “m4”. In Example 5721-2, [jau5 mou5] is another counterpart to A-not-A Interrogatives. [jau5 mou5] A-not-A Interrogatives are used for asking something, in Example 5721-2 it is a beef from the listener. It can possibly be interpreted by a listener as “Have you got any beef (for me)?”.

5721-2
[**jau5 mou5**] ngau4 juk6 aa4? - **Have** you **got** beef? *[Have negator] cow meat SFP*

In casual spoken Cantonese, however, without regards to the structure of the interrogative, the [jau5 mou5] A-not-A Interrogative can be rephrased as in Example 4.4.

The [jau5 mou5] is no longer in pairs, in which case it may not be considered as an A-not-A Interrogative but more of a Yes/No Interrogative and it usually ends with a final rise.

Example 4.4.

[**jau5**] ngau4 juk6 [**mou5**]?- Do you have (some) beef (**not**)? *[have] cow meat [not]*

The types of final intonations patterns found in A-not-A Interrogatives, are shown in Table 4.7. Based on the findings, four of the six types of final intonations were found in A-not-A Interrogatives. Falling Final Intonation pattern has occurred most frequently, amounting to well over half of the intonation patterns nearly 57%, Level and Rising Final Intonations are the second and third most used final intonations with five and four examples respectively and together accounting for just over 39% of the total. Only one example of the Invisible Final Intonation is found, amounting to just 4% of the total of 23.

Table 4.7
Types of Final Intonations in A-not-A Interrogatives

	Type of Final Intonation	**Number Found for each type**	%
1	Rising	4	17.39
2	Falling	13	56.52
3	Level	5	21.74
4	Invisible	1	4.35
5	Center Rise/Fall	0	0.00
6	Random	0	0.00
	TOTAL	**23**	**100.00**

4.2.6. Elliptical Interrogatives

An Elliptical Interrogative can be said to be a “short form” of a complete interrogative. The subject of the interrogative, which is usually already obvious to the listener, is omitted because it then becomes redundant. Alternatively, only the subject is uttered if there is an element of doubt.

4.2.6.1. Fall-rise Intonation Pattern-H*-L*%

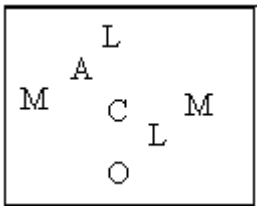


Figure 4.14
Fall-rise Intonation Pattern

In Figure 4.14 - “Malcolm”, depicts the Fall-rise Intonation Pattern of extract 2244 from the data. The shape of this pattern is based on the suggestion of the pitch graph. It is clear that the Onset “C” of the second syllable, consisting of “C.O.L.M ”, does not really show a Level intonation but a consistent falling pattern from the Coda of the first syllable “L”. The falling pattern stops at Nucleus “O”, and is followed by a rising pattern ending at the Coda “M”. This intonation is used when the caller is not sure if the speaker is someone by the name of “Malcolm”. It is actually a short form of “*Are you* Malcolm?” Even with the omission of “Are you”, the single-word reply of the speaker, “Speaking”, obviously shows that he understands the meaning of the intonation that is used by the caller.

4.2.6.2. “ U ” Shape Rising Pattern-H-L-H%

Figure 4.15 shows the intonation pattern of extract 5917 from the data.. It shows a falling pattern from the Onset “L” to the Nucleus “O” with the intonation rising after the

Nucleus “O”, thus completing the name of a person: “Long”. This is a short form of “(*Why is he)* Long?” This intonation is a clear indication of the speaker’s doubt.

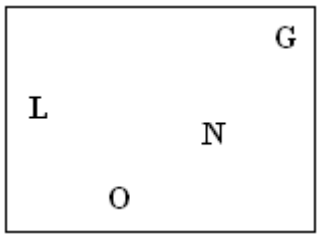


Figure 4.15
“ U ” Shape Rising Pattern

4.2.6.3. Sharp Falling Pattern-L+H*-H%

Figure 4.16 shows the intonation pattern of extract 2521 from the data. “WA:I” means “Hello” in English. It is normally the first utterance spoken by Cantonese speakers when answering the telephone. The types of final intonation patterns found in this type of interrogative are shown in Table 4.8. As can be seen, only two of the six types of final intonations were used in this type of interrogative: Rising and Falling Final Intonations. Based on the findings, the Rising Final Intonations constitute the vast majority of the final intonations in Elliptical Interrogatives, being just over 83% of the total of 12. The remaining two examples belong to the Falling Final Intonation type and amount to just under 17% of the total.

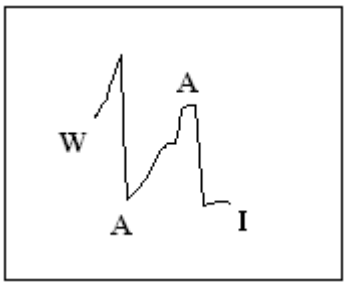


Figure 4.16
Sharp Falling Pattern

Table 4.8
Types of Final Intonations in Elliptical Interrogatives

	Type of Final Intonation	Number Found for each type	%
1	Rising	10	83.33
2	Falling	2	16.67
3	Level	0	0.00
4	Invisible	0	0.00
5	Center RF/FR	0	0.00
6	Unidentified	0	0.00
	TOTAL	**12**	**100.00**

4.2.7. Disjunctive Interrogatives

Disjunctive Interrogatives are also considered as another Choice-Type question (refer to Chapter 2, section 2.6.3.). The words “ding6” or “ding6 hai6” are used when this type of interrogative is made. They can also be considered as key words of this type of interrogative. In example 2729, “ding6” is a free morpheme, and therefore it has its own meaning when used alone. The interrogative is more directing for decision making. It is an interrogative word only when it is used between two choices in a right context. Unlike the A-not-A Interrogatives, which offer a choice of the affirmative or a negative; Disjunctive Interrogatives usually offer two different choices of objects. In extract 2729, the listener is asked to make a choice between Green and Yellow.

2729

Ceng1 sik1 **ding6** wong4 sik1 zek1?- Green **or** Yellow (color)?
Green color *or* *yellow color SFP*

It is also possible the choices offered are actions that to be carried out as in example 0937-2. In extract 0937-2, [ding6 hai6] replaces [ding6] but expresses exactly the same meaning. The findings, however, suggest another example of paired words that may function as key words in this type of interrogative.

0937-2

1,2, 3 zau6 tiu3 [**ding6 hai6**] 1,2,3 sin1 tiu3 ne1?- Jump at 3 **or** after 3 counted?
1,2 at 3 jump [or] 1,2,3 then jump SFP

[jik1 waak6] in extract 5726 are paired words from two bound morphemes, which means "or" in English. They function in exactly the same way with [ding6 hai6] and [ding6].

5726

bun2 dei6 [**jik1 waak6**] jat6 bun2 gaa3? - (from) Local **or** Japan's?
Local [or] Japan SFP

The types of final intonation patterns found in Disjunctive Interrogatives are shown in Table 4.9.

Table 4.9
Types of Final Intonations in Disjunctive Interrogatives

	Type of Final Intonation	**Number Found for each type**	%
1	Rising	1	33.33
2	Falling	1	33.33
3	Level	1	33.33
4	Invisible	0	0.00
5	Center RF/FR	0	0.00
6	Unidentified	0	0.00
	TOTAL	**3**	**100.00**

This type of interrogative was found to be the least used of all the types of interrogatives in the data. Only three examples were recorded out of the total of 233, thereby making up just over 1% of the finding.

4.3. The Relationship between Cantonese Interrogatives and Sentence-final Intonation

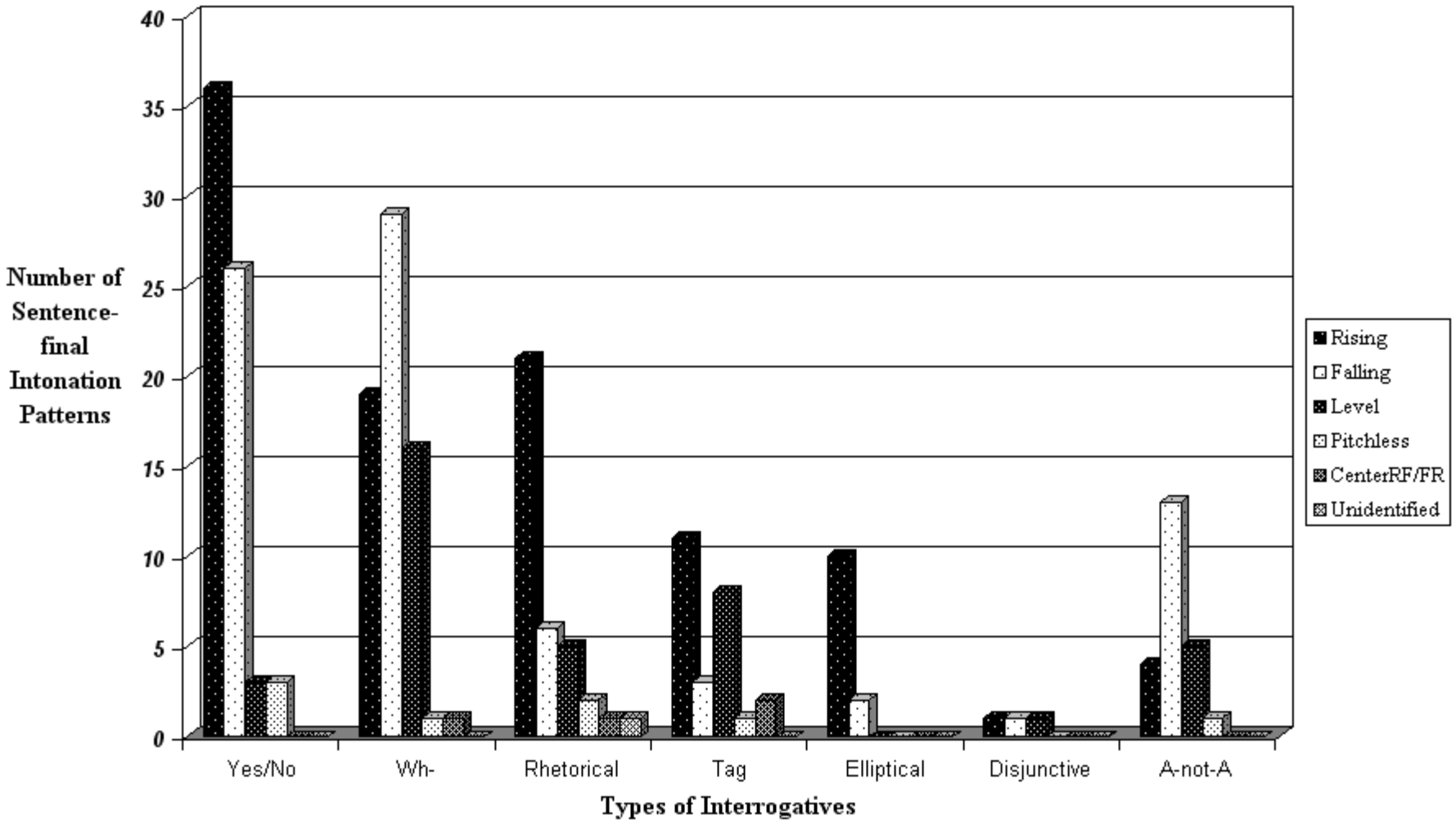
The relationship of between Cantonese Interrogatives and Sentence-final Intonation is shown as in Figure 4.17 and Table 4.10 (detail see Appendix A & B). Based on the data, the findings suggest that, Rising Final Intonations tend to be more frequently used in Yes/No, Rhetorical, Tag and Elliptical Interrogatives, whilst, Falling Final Intonations tend to be chosen more frequently in Wh- and A-not-A Interrogatives. Disjunctive Interrogatives show a similar number of both Rising and Falling Final Intonation. However, due to the small number of such interrogatives, the pattern could not be established.

The coexistence phenomenon of both Rising and Falling Final Intonations in interrogatives is most obvious in Yes/No and Wh-Interrogatives. As can be seen in Table 4.10, the difference of Rising and Falling Final Intonation in Yes/No and Wh-Interrogative is seen in 10 examples or around 15%. Wh-Interrogatives also have the highest frequency count of Level Final Intonation. Elliptical Interrogatives consist by of only Rising and Falling Final Intonations. Together with Yes/No and Rhetorical these two Interrogatives totaled more than half (55.88%) of the total Rising Final Intonations, whilst Yes/No and Wh-Interrogatives together totaled almost 70% of the total Falling Final Intonation.

Table 4.10
The Relationship between Cantonese Interrogatives and Sentence-final Intonation

Interrogative type	Sentence-Final Intonations- Examples (%)					
	Rising	Falling	Level	Invisible	CenterRF/FR	Unidentified
Yes/No	36 (35.29)	26 (32.50)	3 (7.89)	3 (37.50)	0	0
Wh-	19(18.63)	29 (36.25)	16(42.11)	1 (12.50)	1 (25.0)	0
Rhetorical	21 (20.59)	6 (7.50)	5 (13.16)	2 (25.00)	1 (25.0)	1 (100)
Tag	11 (10.78)	3 (3.75)	8 (21.05)	1 (12.50)	2 (50.0)	0
Elliptical	10 (9.80)	2 (2.50)	0	0	0	0
Disjunctive	1 (0.98)	1 (1.25)	1 (2.63)	0	0	0
A-not-A	4 (3.92)	13(16.25)	5 (13.16)	1 (12.50)	0	0
TOTAL	102 (100)	80 (100)	38 (100)	8 (100)	4 (100)	1 (100)

Figure 4.17
Cantonese Interrogatives and Sentence-final Intonation



4.3.1. Average Highest and Lowest F0

The average counts were calculated for Rising and Falling Final Intonation, in order to illustrate the highest and lowest F0 achieve in each interrogative.

4.3.1.1. Average Highest F0

As can be seen in Table 4.11 and Figure 4.18, among the seven types of Cantonese interrogatives, Wh-Interrogatives showed the highest average F0 with 275.86 hertz, followed by Elliptical, Yes/No and Rhetorical Interrogatives. These three interrogatives have an average highest F0 of around one hertz difference from each other, which respectively have 237.64, 236.80 and 235.10 hertz. A-not-A interrogatives had around 10 hertz difference from Rhetorical Interrogatives and in the fifth place with an average highest F0 of 224.97 hertz. One of the two interrogatives that were below 200 hertz in average highest F0, Tag Interrogative, was in sixth place with a hertz difference of around 10 higher than Disjunctive interrogatives, which was the lowest with 182.13 hertz.

4.3.1.2. Average Lowest F0

The analysis of the data showed that, the lowest average F0 are Disjunctive interrogatives, which had the lowest in highest average F0 category, but which also had the highest average in the lowest average F0. It was the only interrogative that reached over 200 hertz on average. It should be noted that, this type of interrogative has only one example in both categories, so the average count was actually just based on a single example. Tag interrogatives had the lowest average height of 117.4 hertz. Elliptical and Wh-interrogatives are in second (148.94) and third (143.36) place. Yes/No, Rethorical and A-not-A interrogatives were in fourth (139.68), fifth (138.83) and sixth (138.71). Their side

by side lowest average hertz difference never more than one hertz. The difference between Rethorical and A-not-A interrogatives is even merely 0.1 hertz.

Table 4.11
Average Highest and Lowest F0

Average (hertz)	Cantonese Interrogatives						
	Yes/No	Wh-	Rhetorical	Tag	Elliptical	Disjunctive	A-not-A
Highest	236.80	275.86	235.10	192.12	237.64	182.13	224.97
Lowest	139.68	143.36	138.83	117.40	148.94	202.20	138.71

Based on these findings, the differences in average hertz between interrogatives are rather close, most differences are in between 0.1-10 hertz, while the difference between the highest and lowest average for both sections were around 100 hertz difference. The findings showed that, Wh-Interrogatives the interrogatives with the highest Falling Final Intonation frequency counts having surpassed Yes/No Interrogatives, with the highest Rising Final Intonation number, achieve the highest average F0.

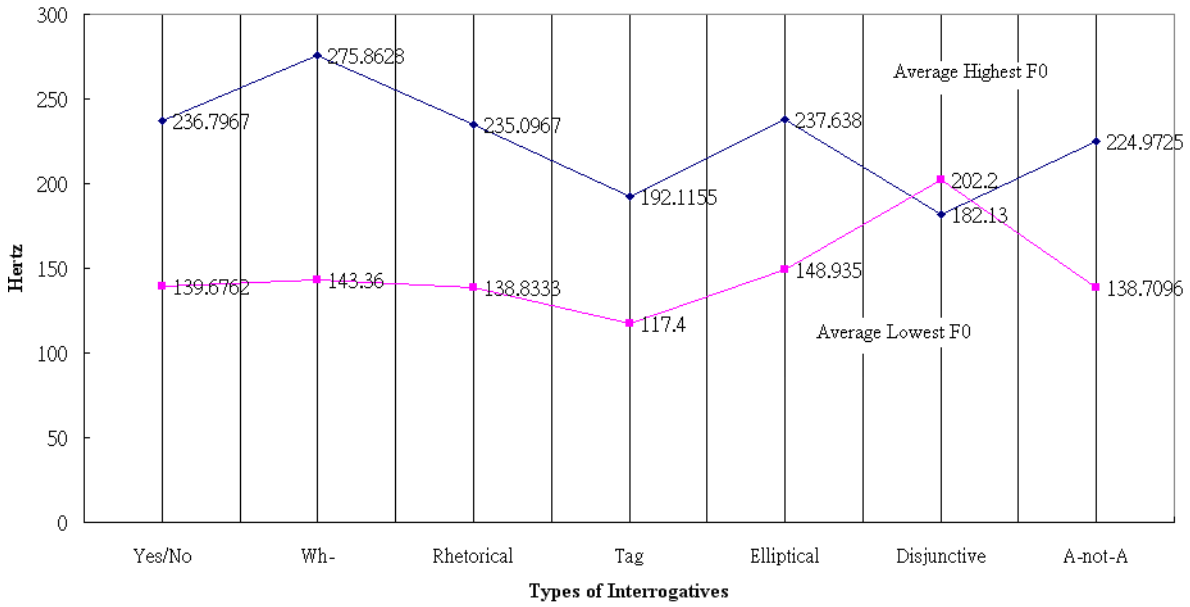


Figure 4.18
Average Highest and Lowest F0

4.4. Factors Affecting Sentence-final Intonation Patterns

This part of the study discusses and analyses variables that affect the sentence-final intonation patterns. It will answer questions as to why Falling Final Intonations are used in Yes/No Interrogatives and explores the use of Rising Final Intonation in Wh-Interrogatives, where the findings suggest that a Falling Final Intonation tend to be used most frequently.

4.4.1. Lexical Tone

4.4.1.1. Right Dislocation in Cantonese

As previously mentioned, Cantonese has a subject-verb-object (S-V-O) order syntax form (refer to Chapter 2, section 2.1.2.2.1.) as in Example 4.5.

Example 4.5

(subject)	(verb)	(object)	
nei5	geng1		aa4?- (Are) you afraid?
You	*afraid*	*∅*	*SFP*

The context of Example 4.5 is that the owner of a mobile telephone is afraid to answer it. His friend asks him if he is afraid. It is clear from this example that if the object in the conversation is apparently understood by both the speaker and the hearer it can be optionally omitted from the sentence. The sentence means “are you afraid to answer the phone (object)?”. The same meaning can be conveyed in another way in extract 2444-2 below which is very common in Cantonese. As can be seen, the S-V-O syntax structure “nei5 geng1 aa4”, has now become V-O-S in Figure 4.19, which is a phenomenon known as the Right Dislocation (refer to Chapter 2). It literally means that the order of a constituent in a phrase is reversed, the object position being taken up by the subject.

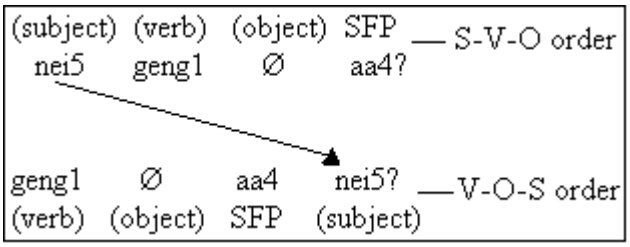


Figure 4.19
Transformation of S-V-O to V-O-S

2444-2

(Verb)	(Object)	(Subject)	
geng1	aa4	nei5?	- Afraid (of something) you?
afraid	*SFP*	*Ø*	*you*

It should be noted that the personal pronoun, whether detached or taken up, can be in the singular as well as in the plural form. Right Dislocation simply shows a syntactic operation which affects the surface structure of the syntax, but in the deep structure, it has the same meaning despite the V-O-S and S-V-O word order.

Figure 4.20 shows a case of Dislocation. The end of the sentence is taken up by the subject that changes the syntax structure to V-O-S. As such, the pitch rises in the final syllable “nei5”. This is in contrast to the S-V-O structure in which “aa4” and not “nei5” is the final syllable of the sentence. In this instance a Falling Final Intonation pattern will occur because “aa4” is a Low-falling tone.

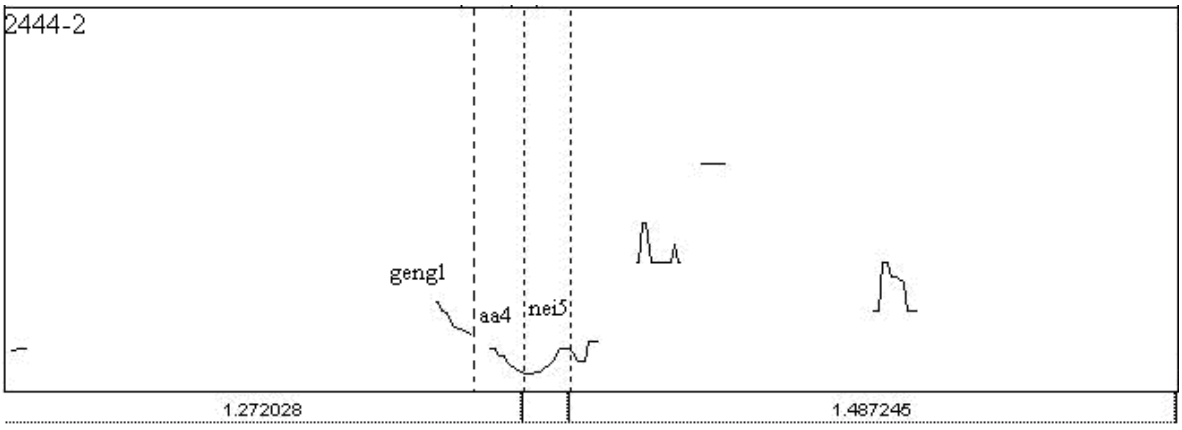


Figure 4.20
Pitch Graph of a Dislocation Case

4.4.1.2. Phonological Process

4.4.1.2.1. Vowel Reduction

Based on the data, the reduction of vowel “i” has an influence in the production of Invisible Final Intonations. A total of eight examples of Invisible Final Intonations were found in the data (see Table 4.12) of which five are related to “i” reduction. In extract 5814, “mei6 aa4” [mei a:], “i” being an unstressed vowel in between “e” and “aa” which are stressed vowels in this case, the articulation of “i” is likely to be reduced. (refer to Chapter 2, section 2.1.2.2.3.) When “i” is reduced “ei aa” is heard as “eaa”.

Therefore, “aa4” has a Low-falling tone that may have further lowered the voice frequency. In the audio file, a creaky voice is found in the “eaa” part when articulated by a low voiced male speaker. As a consequence, the F0 produced by a scarce voice is undetectable in the pitch graph. In Figure 4.21, the spectrogram indicates that there is no movement of the first formant which can be anticipated for a diphthong like /ei/, suggesting that the vowel has been reduced.

5814 sik6 saai3 dik1 je5 mei6 aa4? – (Are/is) the food finished? *eat Complement structural things yet SPF?* *Particle*

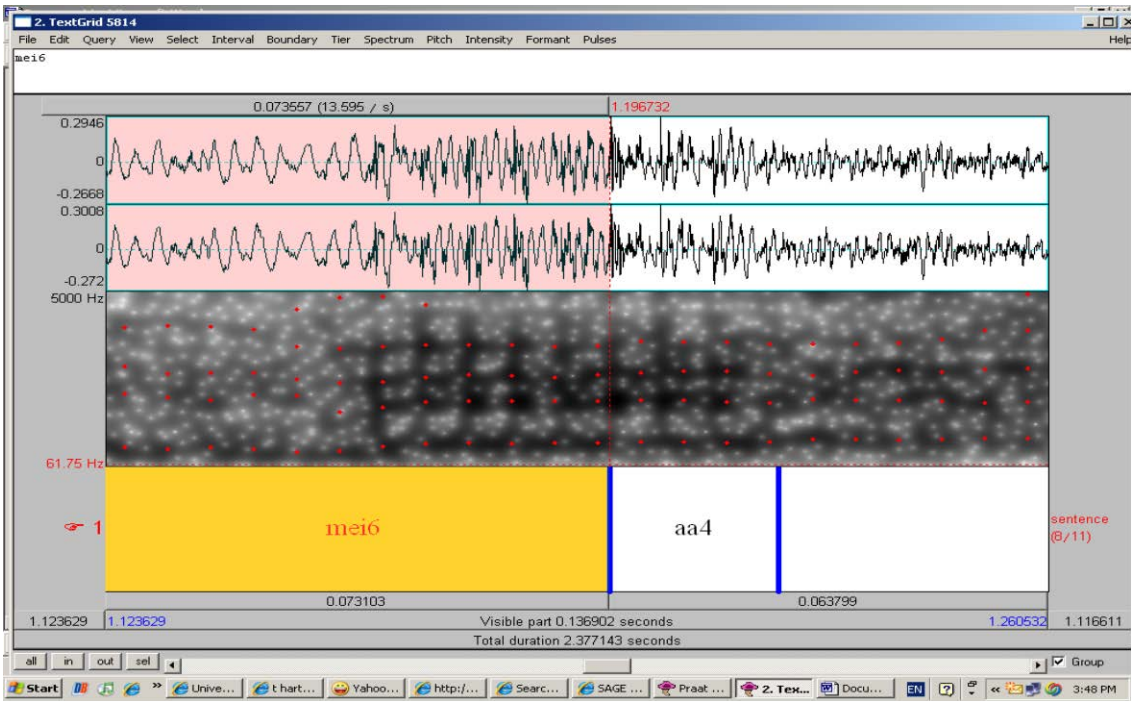


Figure 4.21
Vowel "i" Reduction

Table 4.12
Phonological Processes of Invisible Final Intonations

Production of	Example(s)
Vowel / i / Reduction	5
Consonant Deletion	2
Unidentified	1

4.4.1.2.2. Consonant Deletion

In extract 1651 and Figure 4.22, in “saat3 aa4” [sa:t̚ a:], being an Unreleased Stop “t” in “saat” does not receive any particular stress phonetically (refer to Chapter 2, section 2.1.2.2.3.). Vowel “aa” before and after the “t” further weaken its sound which can possibly cause a total deletion. When “saat aa” becomes “saaaa”, there are four vowels “a” in a row with a Low-falling tone; in fast casual spoken Cantonese, there is a great probability a breathy voice is produced, which is not normally detectable in a pitch graph but can be detected in a spectrogram. As can be seen in Figure 4.22, the spectrogram does not indicate the presence of /t /, because as a stop consonant there should be an absence of acoustic signal following “aa3”, but this is not evident in the spectrogram. Instead there is a long vowel sequence following /s /.

1651
nei5 zi6 saat3 aa4 –(Did) you commit suicide? *you self kill SFP*

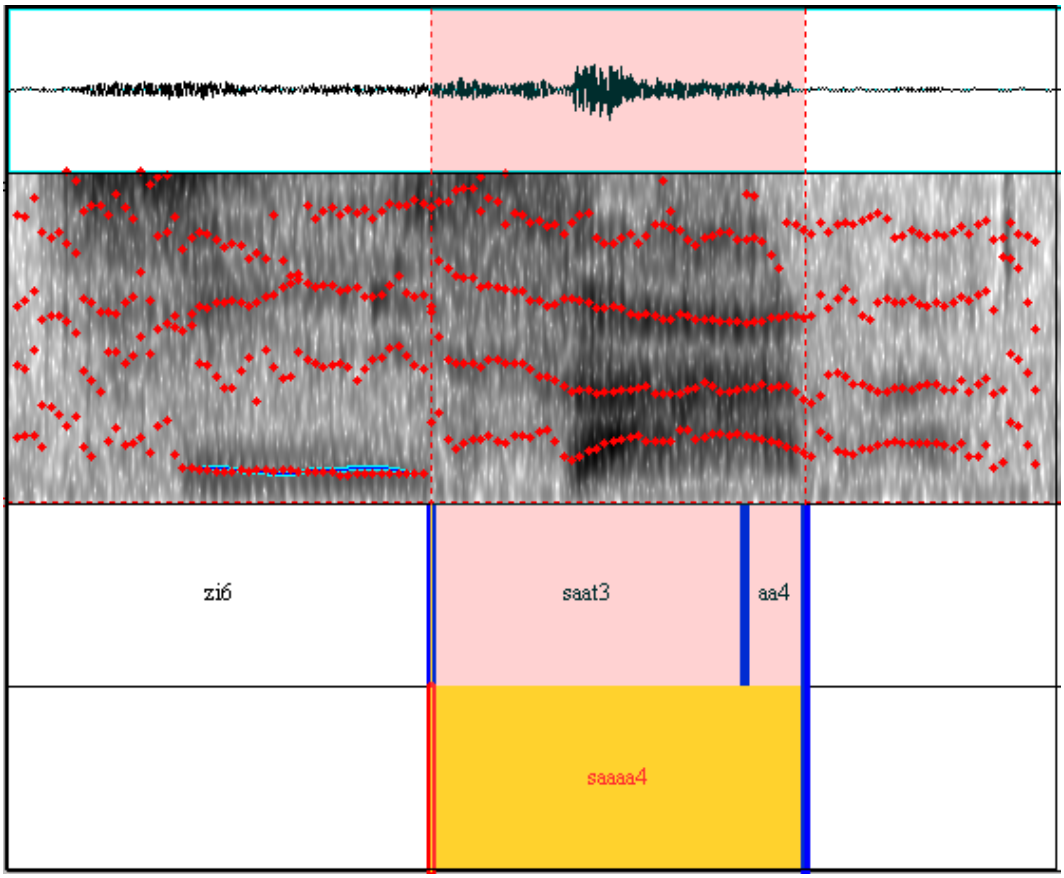


Figure 4.22
Consonant "t" Deletion

4.4.1.3. The Influence of SFPs

Cantonese SFPs are known to be able to turn a statement into an interrogative by just being placed at the sentence-final position (refer to Chapter 1, section 1.2.1.). Extract 6123 being an example of showing a Yes/No Interrogative turns into a Wh-Interrogative by inheriting a Wh-SFP "ne1". In extract 6123, "ne1" is a Wh-SFP and denotes inquiry- "Who" and "Where". "gwo2 bin1?"-"That side?" already is a Yes/No Interrogative, but the speaker's choice of the Wh-SFP, "ne1" has turned the meaning as well as the type of the interrogative to "How about that side?" and a Wh-Interrogative now.

6123 gwo2 bin1 ne1? - (How about) that side? *That side Wh- SFP?*

Figure 4.23 shows that “A” is both the initial pitch of “ne1” at 337.71 hertz, while “B” is the final pitch of “ne1” at 347.98 Hertz. The difference between these two points is more than 10 Hertz (10.27 hertz). Relatively speaking, this interrogative is considered to have a Rising Final Intonation.

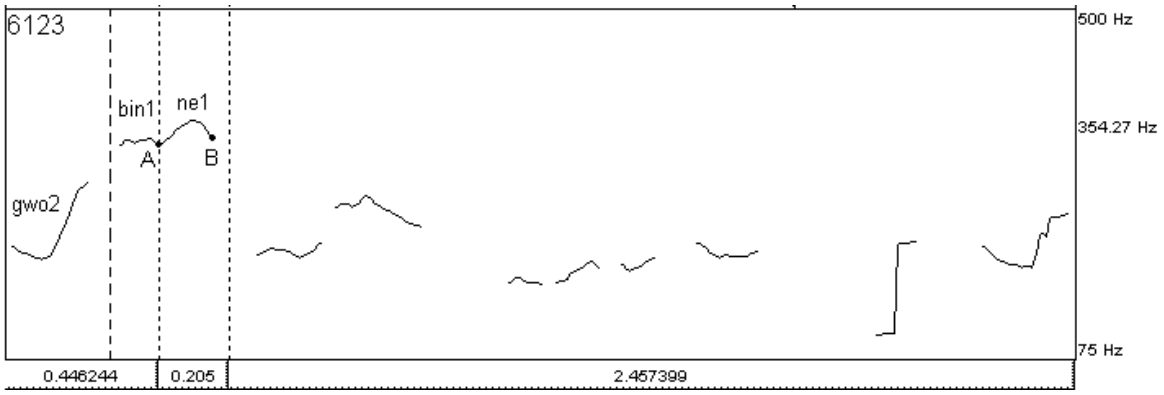


Figure 4.23
A Wh-Interrogative with a Rising Final Intonation

A Yes/No Interrogative is having a Falling Final Intonation, because of inheriting a Low-falling SFP “aa4”. In extract 2935, the syntactic structure indicates that it is a Yes/No Interrogative with “aa4”-a Low-falling tone SFP resulting in a Falling Final Intonation. As a matter of fact, “zan1 hai6 nei5?”-“really you?” already is a Yes/No Interrogative, but the speaker’s choice of “aa4”, does not change the meaning of the interrogative nor its interrogative type, but the sentence-final pitch pattern, In Figure 4.21, as can be seen, in “zan1 hai6 nei5?”, the sentence-final pitch “nei” shows an abvious rising pattern, the choice of “aa4”, however, has turned the rising of “nei” to a falling pattern.

2935
zan1 hai6 nei5 aa4? - Is that really you? *real to be you SFP?*

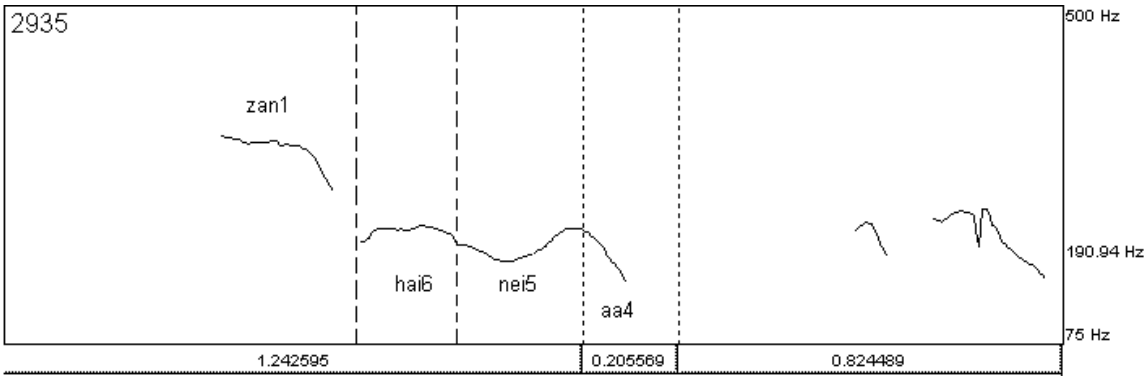


Figure 4.24
A Yes/No Interrogative with a Falling Final Intonation

4.4.1.4. Tone Sandhi

The analysis of the data indicates that, there was no case of tone sandhi in the data that happen on sentence-final position by its 'natural course' described by Yu (2007, refer to Chapter 2, section 2.1.2.2.2.). Almost of the interrogatives without SFP in the data that with a substantial morpheme at a sentence final position (such as nouns) are to be affected by intonation, example extracts are 4822, 5128 and 5149. This study tried to examine the Cantonese tone sandhi the way defined by Ladefoged (2006) and Brown, Currie & Kenworthy (1980) (refer to Chapter 2, section 2.1.2.2.2.), where examination focuses on two similar tones occur in juxtaposition. In this study, focus is only drawn to the Tone Sandhi phenomenon when it occurs in High-level tone /55/. According to the findings this phenomenon is mostly seen in this level tone in interrogatives both with and without a SFP. The vast majority of interrogatives, however, have a SFP.

4.4.1.4.1. Interrogative without SFP

In extract 5556, both "do1" and "fan1" are juxtaposed as two final words in the interrogative, both of them in High-level tones which can be read independently. In practical spoken Cantonese, there may be some possible articulatory constraints. As can be

seen in Figure 4.22, both final High-level tones are changed for the convenience of articulation.

5556 nei5 bei2 nei1 go3 proposal gei2 do1 fan1 -How many marks will you rate this proposal? *you give this one proposal how many marks*

Figure 4.25 shows a Falling Final Intonation pattern. “fan1” has a High-level tone, but it does not seem to be in a High-level pattern. On the contrary, it is in a Regular Falling pattern to make the articulation easier. The word preceding the final word is also affected by the final word, as it shows a falling tendency, ready to be coordinated with “fan1” that comes after it. It creates a falling pattern.

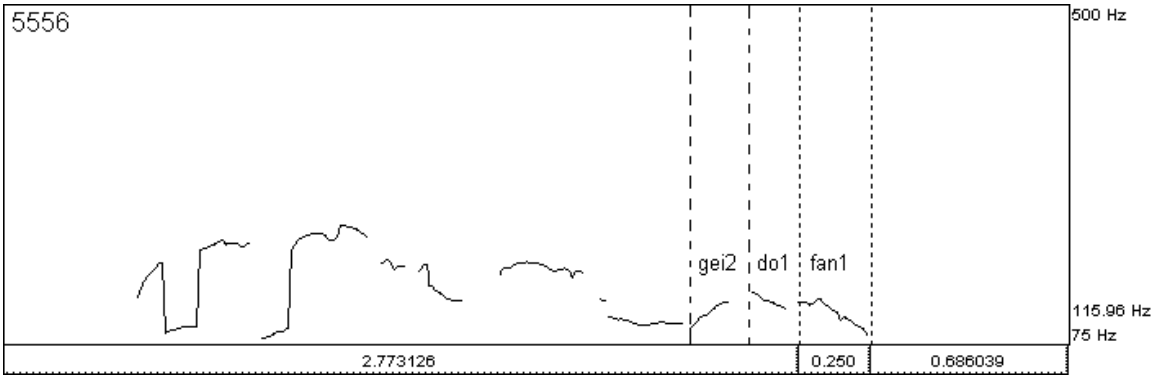


Figure 4.25
Tone Sandhi in Interrogative without SFP

4.4.1.4.2. Interrogatives with an SFP

In cases of interrogatives with SFPs a rather different situation is evident compared to interrogatives without SFP. In this category, intonation can be rising or falling with different SFPs performing different key roles.

4.4.1.4.2.1. SPF with a Rising Final Pitch Pattern

In extract 4051, “me1”, “ne1” are SFPs, both have a High-level tone resulting a Rising Final Intonation.

4051						
ngo5	jiu3	siu2 sam1	dik1		me1	ne1?- What do I have to be aware of?
I	*have to*	*beware*	*Structural Particle*		*Wh-keyword*	*SFP*

Figure 4.26 depicts four High-level tones occurring in sequence as the last four words. In order to make “ne1” sounds like a rising tone, “me1” with a High-level tone is firstly lowered for “ne1” which comes after, so that it can be articulated relatively higher in pitch. In this way, the vocal tract does not have to hold a high tone for a longer time and thus pronunciation is made considerably easier.

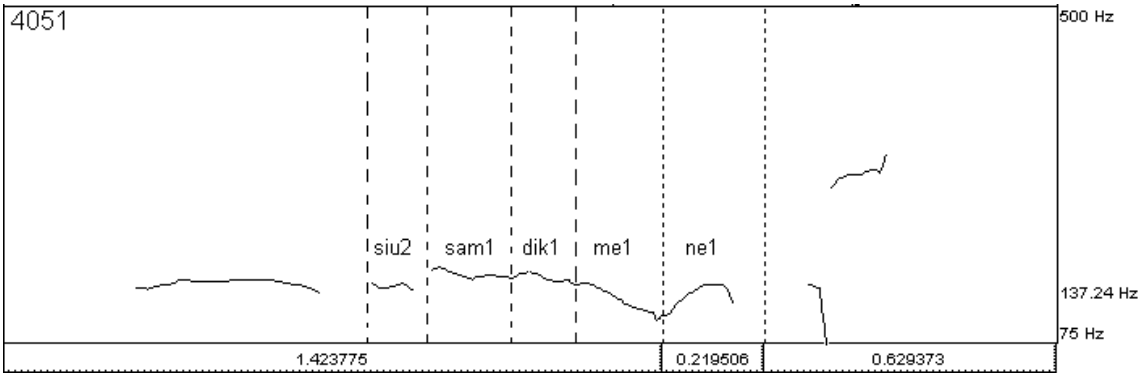


Figure 4.26
SFP with a Rising Final Pitch Pattern

4.4.1.4.2.2. SPF with a Falling Final Pitch Pattern

In this category, there are also SFPs that create a Falling Final Intonation in interrogatives that have two High-level tones juxtaposed. In extract 4319, the Entering-Tone “zek1” end in a stop connosant such as /p/, /t/ and /k/ (refer to Chapter 1 & 2 Section 1.2 & 2.1.2.1.1.). Normally an Entering Tone is relatively short in accentuation stress compared to Non-Entering Tones.

4319 gei2 si4 tung4 nei5 duk6 gwo3 syu1 zek1?- When we went to school togather? *when time with you study Past tense books SFP* *Particle*

Figure 4.27 shows an example of an Entering Toned SFP “zek1” followed by another High-level toned word “syu1”. It produces a Falling Final Intonation.

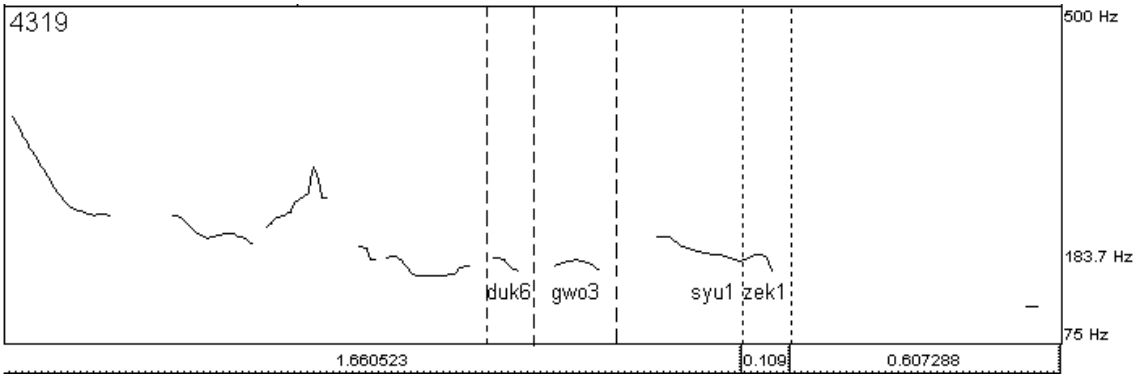


Figure 4.27
SFP with a Falling Final Pitch Pattern

4.4.2. The Speaker

4.4.2.1. Emotions and Intentions of the Speakers

Varied intonation contours imply connotative meanings in utterances which may help to differentiate the meaning of a sentence from the intended meaning of the speaker. In addition, they help to modify semantic content of an expression without rephrasing the structure of the expression itself.

4.4.2.1.1. Emotions of the Questioners

In extract 2103-2, when “aa1” comes after a verb or “dim2”, under the context of 2103-2, it shows a sense of challenge or defiance towards someone when doing something, which is normally indicated by the verb that precedes the “aa1”.

2103-2
nei5 gong2 aa1- say it out (how dare you)? *You say SFP*

Example 2103-2 is not a neutral interrogative. The questioner is challenging the hearer to say something. As mentioned above, the action that being challenged is normally indicated by the verb that precedes the SFP “aa1”. From the tones indicated in Figure 4.28 above, “aa1” is a High-level tone /55/, but as can be seen in the pitch graph, it is not only high but a clear Rising Final Intonation.

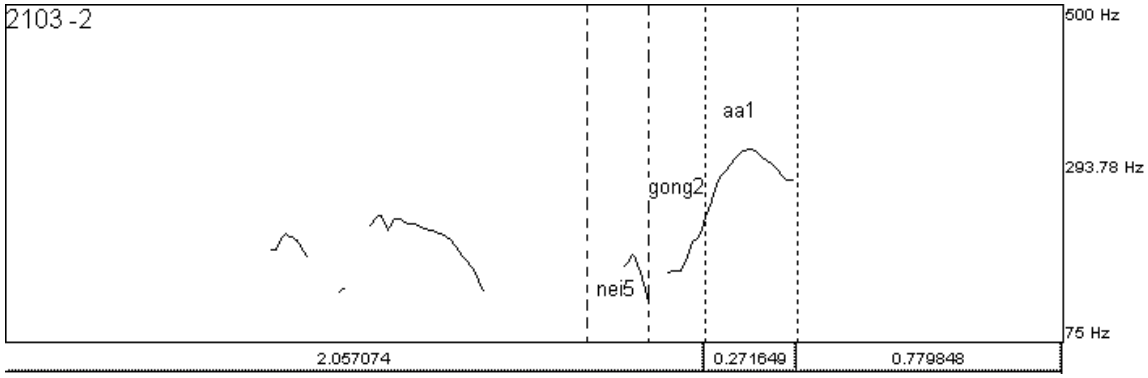


Figure 4.28
Pitch Graph Showing Emotion Affects Final Intonation, “aa1”

Another extract is 5149, tone “dou6” is the word with a Low-level tone /22/. The tone suggests a Falling Final Intonation pattern which makes it sound like a statement.

5149
heoi6 Roy gwo2 dou6 - Go to Roy’s? *go Roy there over*

As can be seen in Figure 4.29, the “dou6 ” component shows a “U” Shape Rising pitch pattern. The U-Shaped Intonation pattern shows that the questioner is doubtful when he was asked to go to Roy’s place. The final intonation has not only changed

the connotative meaning of the interrogatives, but also their illocutionary forces as well. When considering the original tones setting with “dou6” as a sentence-final tone, extract 5149 can no longer be considered as an interrogative but more of a statement or an order as evident in this particular context.

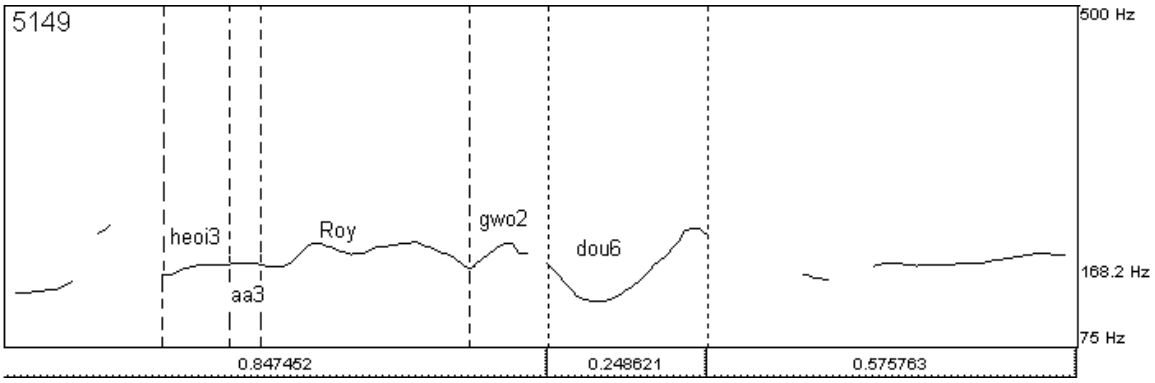


Figure 4.29
Pitch Graph Showing Doubtful Speech, “dou6”

4.4.2.1.2. Intentions of the Questioners

In extract 4030, shows the intention of the speaker of choosing SFP “ne1”. Without “ne1”, “nei5 hai6 bin1 wai6”, already is a grammatical Wh-Interrogative, as there is “bin1”, the Wh-key word. Obviously, the choice of adding “ne1” is intentional. According to the movie context, the questioner is simply pretending that he “cannot remember” who the hearer is. The questioner tries to avoid answering a direct question from the hearer, due to an embarrassing situation, so he is actually pretending that he does not know the hearer.

4030
nei5 hai6 bin1 wai6 ne1- Who are you then? *you to be who SFP*

As can be seen in Figure 4.30, the sentence final pitch for sentence “nei5 hai6 bin1 wai6?”-“who are you?” shows a falling tendency, as the High-level SFP “ne1” is chosen for this Wh-Interrogative. The questioner’s possible intentions alter a falling tendency sentence final pitch to a Rising one.

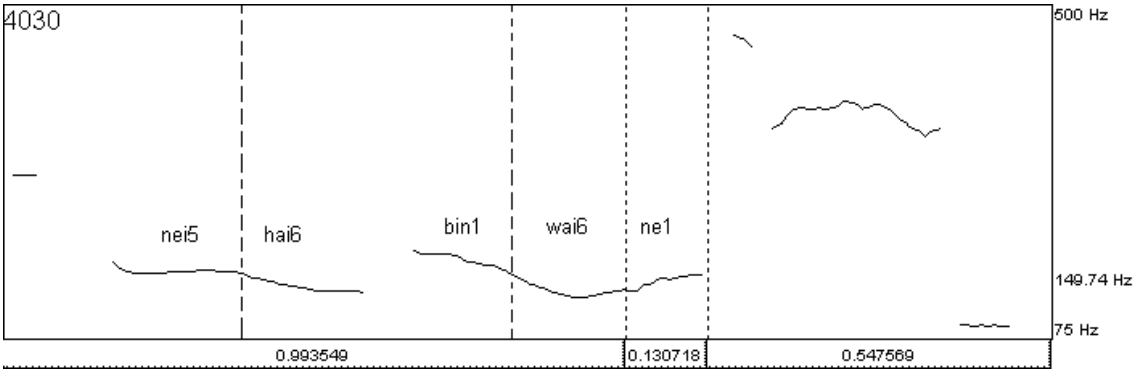


Figure 4.30
Intention of Choosing “ne1” Affecting to Final Intonation

A Falling Final Intonation found in a Yes/No Interrogative can be a polite phatic speech, designed to share feelings or to establish a mood of sociability rather than to communicate information or ideas. In Figure 4.31, the pitch graph shows a Falling Final Intonation phatic speech in a Rising Final Intonation predominant Yes/No Interrogative. This is simply a common expression among Cantonese speakers in which the questioner expects neither a decision nor any specific information from the listener.

4508-1
sik6 je5 aa4?- (are you) eating huh? *eat things SFP*

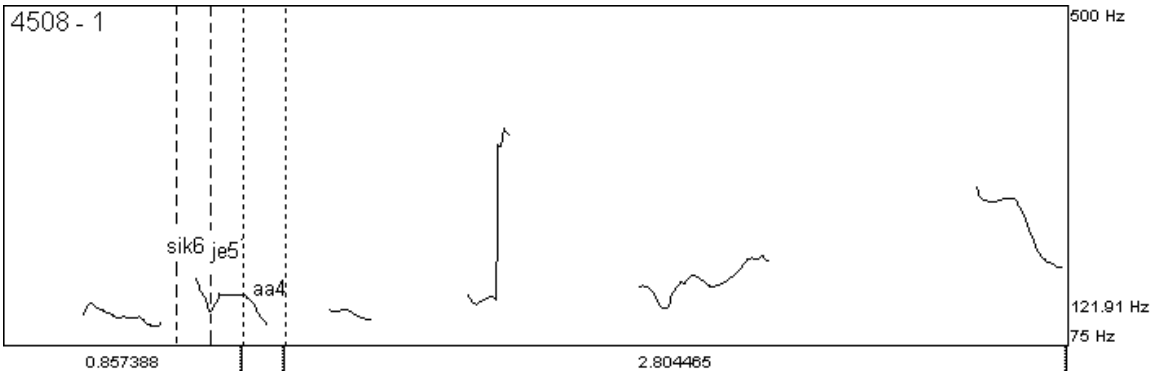


Figure 4.31
Pitch Graph Showing Phatic Speech

4.4.2.2. Influence of the Second Speaker

The influence of the second speaker is one explanation for the exceptional case of a questionable U-Shape Rising Pattern which was found in the data. The extract 2509-2 is categorized based on the auditory judgement and not F0 contour shown in the pitch graph shown in Figure 4.33.

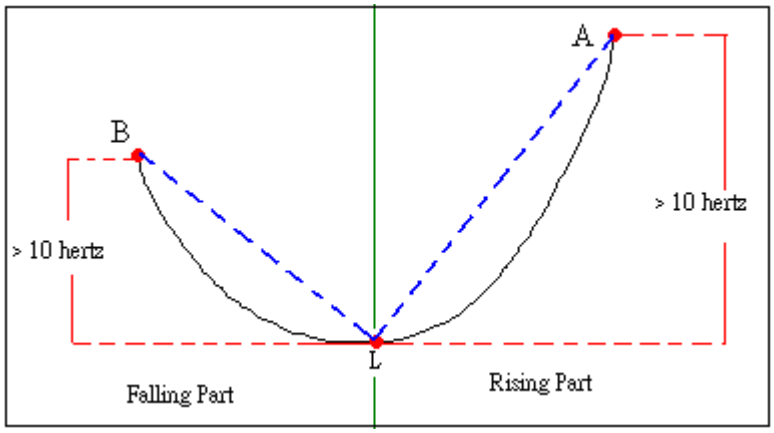


Figure 4.32 (from Figure 4.3)
“ U ” Shape Rising Pattern

The definition of a “ U ” Shape Rising Pattern (Figure 4.32) states that both points “A” and “B” must be higher than “L” by at least 10 hertz, and “A” should be higher than “B” by at least 10 hertz.

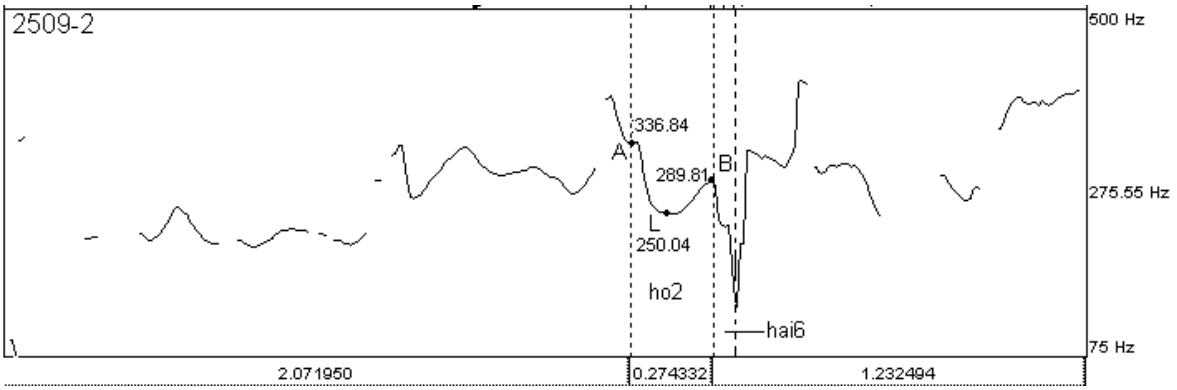


Figure 4.33
Influence of the Second Speaker to Final Intonation Pattern

In extract 2509-2 (Figure 4.33), the pitch at point “A” is 336.84 hertz, “L” is 250.04 hertz, “B” is 289.81 hertz. Both “A” and “B” are higher than “L” by at least 10 hertz, but “B” has a lower pitch than “A” of more than 10 hertz. Based on these measurements, “ALB” is a Falling-rise Pattern.

The data shows that at this juncture where two speakers were talking at the same time and their utterances overlap at point “B”, where only the second speaker can be heard saying “hai6”. When using an auditory approach to analyse these particular articulations, the first speaker can be heard to say “ho2” at the same time the second speaker is saying “hai6”. The ultimate part of “ho2” and “hai6” merged in the waveform and what is displayed in the pitch graph is not “ho2” but “hai6” which is heard louder. Without the interruption of “hai6”, the pitch in “ho2” is expected to rise higher to the end of the utterance, but the speaker’s pitch remains at 289.81hertz, “ho2” appears as if it is dragged down and prevented from rising by a Low-level tone word “hai6”.

It is often the case that in instances of interruption or overlapping the first speaker will relinquish his turn to the second speaker by lowering his voice or stop talking altogether (so that he can hear what the other person saying), or in this case, accommodate his pitch level to that of the second speaker. Thus, in the findings, extract 2509-2 should be

categorized as a “U” Shape Rising Final Intonation based on the auditory judgement and not the pitch graph pattern. In spoken discourse analysis, it is very important to examine evidence and data using both auditory as well as acoustic approaches. Failing to do so may result in a discrepancy such as the one highlighted in this section.

4.5. Summary

This chapter outlined six types of sentence-final intonations and seven types of interrogatives in Cantonese. It then went on to discuss the relationship between Cantonese interrogatives and sentence-final intonations. Finally, six variables affecting the sentence-final intonation patterns were identified. The next chapter will provide a summary of the findings and point out a future research.