The following is a transcript of the samples of the speakers included in the qualitative analysis. The first two lines are transcriptions of the utterances in Chinese characters and jyutping respectively. The transcription was produced based on target utterances and does not reflect actual production. The third line is a rough (readable) English translation. Comments are in parenthesis. Ungrammatical utterances, marked with an asterisk (*), have a fourth line explaining the mistake.

HS1 嗰 個 人 瞓 咗 覺

go2 go3 jan4 fan3 zo2 gaau3

that person fell asleep

嗰 個 人 就 唔 開心

go2 go3 jan4 zau6 m4 hoi1sam1

so that person was unhappy

跟住 個 人 就 跌 咗

gan1zyu6 go3 jan4 zau6 dit3 zo2

and then the person let something fall (intended meaning: fell down)

嗰 個 人 就 講

go2 go3 jan4 zau6 gong2

then the person said

青蛙 你 喺 邊度

cing1waa1 nei5 hai2 bin1dou6

frog where are you

HS2 之後 佢 好 唔 開心

zi1hau6 keoi5 hou2 m4 hoi1sam1

afterwards he was really unhappy

*佢 快 啲 著

keoi5 faai3 di1 zoek3

he put on (his clothes) quickly

- 快啲 *faai3 di1* “quickly” is usually used in the imperative.

- The target object 衫 *saam1* “clothes” cannot be dropped here.

之後 佢 就 跑 去 第 二 個 地方 叫 青蛙

zi1hau6 keoi5 zau6 paau2 heoi3 dai6 ji6 go3 dei6 fong1 giu3 cing1waa1

afterwards he ran to another place to call the frogs

佢 搵 到 佢 啲 青蛙

keoi5 wan2 dou2 keoi5 di1 cing1waa1

he found his frogs

HS3 跟住 隻 狗 係咁 追 隻 鹿 想 攞 翻 個 男仔

gan1zyu6 zek3 gau2 hai6gam2 zeoi1 zek3 luk2 soeng2 lo2 faan1 go3 naam4zai2

and then the dog kept on chasing the deer and wanted to take the boy back

跟住 隻 鹿 跑

gan1zyu6 zek3 luk2 paau2

and then the deer ran

跟住 個 男仔 跌 咗 落 去

gan1zyu6 go3 naam4zai2 dit3 zo2 lok3 heoi3

and then the boy fell down (a cliff)

HS4 *個 青蛙 出 嚟 呀

go3 cing1waa1 ceot1 lai4 aa3

the frog is coming out

- The classifier for frog is 隻 *zek3* not 個 *go3*.

*佢哋 搵 個 青蛙

- The classifier for frog is 隻 *zek3* not 個 *go3*.

keoi5dei6 wan2 go3 cing1waa1

they are looking for the frog

佢哋 去 搵 佢

keoi5dei6 heoi3 wan2 keoi5

they are going to look for it

佢哋 一味 搵 同埋 搵

keoi5dei6 jat1mei2 wan2 tung4maai4 wan2

they keep on looking and looking for it

佢 跌 咗 呀

keoi5 dit3 zo2 aa3

it fell

HS5 * 細路仔 睇 吓 佢 個 青蛙

sai3lou6zai2 tai2 haa5 keoi5 go3 cing1waa1

the kid looked at his frog

- The classifier for frog is 隻 *zek3* not 個 *go3*.

* 佢 個 青蛙 唔 喺 依度

keoi5 go3 cing1waa1 m4 hai2 ji1dou6

his frog was not here

· The classifier for frog is 隻 *zek3* not 個 *go3*.

依個 細路仔 又 講

ji1go3 sai3lou6zai2 jau6 gong2

this kid then said

青蛙 你 喺 邊度

cing1waa1 nei5 hai2 bin1dou6

frog where are you

HS6 *男仔 同 個 狗 瞓 緊 覺

naam4zai2 tung4 go3 gau2 fan3 gan2 gaau3

boy and the dog are sleeping

· The classifier for dog is 隻 *zek3* not 個 *go3*.

青蛙 走 囉

cing1waa1 zau2 lo3

frog left

*佢哋 搵 緊 個 青蛙

keoi5dei6 wan2 gan2 go3 cing1waa1

they are looking for the frog

· The classifier for frog is 隻 *zek3* not 個 *go3*.

*個 狗 跳 出 嚟

go3 gau2 tiu3 ceot1 lai4

the dog jumps out

· The classifier for dog is 隻 *zek3* not 個 *go3*.

			Guangzhou	Hong Kong	United States	Beijing
Native-likeness	HK	GZCAN	5.22 (1.26)	5.79 (0.61)	3 (1.58)	4.96 (0.95)
		HKCAN	5.19 (0.85)	5.8 (0.5)	4.4 (0.55)	4 (1.73)
	HS	GZCAN	4.53 (1.43)	5.47 (0.83)	2.69 (1.55)	3.51 (1.79)
		HKCAN	3.95 (1.1)	5.11 (0.94)	2.84 (1.29)	2.9 (1.18)
Comprehensibility	HK	GZCAN	5.41 (0.96)	5.7 (0.75)	2.4 (0.89)	4.12 (1.65)
		HKCAN	5.23 (0.76)	5.64 (0.76)	4.8 (0.84)	5.67 (0.58)
	HS	GZCAN	4.93 (1.12)	5.04 (1.25)	3.94 (1.52)	4.25 (1.58)
		HKCAN	4.43 (1.1)	4.77 (1.22)	3.74 (1.24)	3.68 (1.15)

Supplementary Table 1. Mean scores (*SD*) given to speakers grouped by where they were perceived to be from. The scores were given on a scale of 1–6 (highest = 6).

	High ratings			Low ratings		
Speaker	HS1	HS2	HS3	HS4	HS5	HS6
Scores from GZCAN raters						
Native-likeness*	5	5	5.56	3.05	2.53	2.37
Comprehensibility *	5.29	5.35	5.67	3.68	3.21	2.89
Place						
Option with the most votes	Beijing	Guangzhou	Hong Kong	Beijing	Beijing	Guangzhou
% of votes	33	58	71	50	61	35
Scores from HKCAN raters						
Native-likeness *	5.1	4.7	5.3	2.5	2.63	2.6
Comprehensibility *	5.03	5.3	5.5	2.77	2.7	2.83
Place						
Option with the most votes	Guangzhou	Guangzhou	Hong Kong	United States	Guangzhou	United States
% of votes	37	41	93	73	43	67
Linguistic background						
Gender	Male	Female	Female	Male	Male	Female

Birthplace	Mainland China	United States	United States	United States	United States	Mainland China
Age of testing	7;4	10;11	8;1	6;11	7;0	9;2
Age of arrival in the United States	1;9	NA	NA	NA	NA	5;6
Length of residence in the United States (years)	5.5	10.9	8.1	6.9	7.0	3.6
Visits to China	0	1	2	0	1	0
Can read/write Chinese words	Yes	Yes	Yes	No	No	Yes
Other languages spoken	Mandarin	Mandarin	-	-	-	Spanish
Father’s place of birth	Mainland China	Mainland China	Hong Kong	Mainland China	-	Mainland China
Mother’s place of birth	Mainland China	Mainland China	Hong Kong	Mainland China	-	Mainland China
Father’s occupation	-	-	Driver	Waiter	-	Chef
Mother’s occupation	-	-	Secretary	Caretaker	Community worker	Cashier
Father’s education	"None"	"None"	Secondary	Secondary	-	Vocational
Mother’s education	"None"	"None"	Secondary	Secondary	-	Vocational
Father’s self-rated Cantonese listening *	6	6	6	6	-	6

Father's self-rated Cantonese speaking *	6	6	6	6	-	6
Mother's self-rated Cantonese listening *	6	6	6	6	-	6
Mother's self-rated Cantonese speaking *	6	4	6	6	-	5
Father's percentage of Cantonese use with child	75	75	100	100	100	75
Child's percentage of Cantonese use with father	75	75	75	100	100	75
Mother's percentage of Cantonese use with child	75	25	100	100	100	25
Child's percentage of Cantonese use with mother	75	25	75	100	100	25
Siblings	0	1 older	1 older	-	1 older	0
Percentage of Cantonese use between siblings	NA	50	75	75	75	NA

Other adults living in the same household	NA	NA	Grandparents	NA	-	NA
Percentage of Cantonese used to teach in school	0	0	0	-	0	0
Percentage of Cantonese used with classmates in school	0	0	0	-	0	0
Attending extracurricular Chinese classes	In Mandarin	In Cantonese	In Cantonese	In Cantonese and Mandarin	In Mandarin	In Mandarin
Percentage of Cantonese used when...						
Playing sports	75	0	50	-	-	0
Talking to friends	25	0	0	-	0	0
Watching TV	75	50	50	-	25	25
Using the computer	50	0	0	-	0	0

Supplementary Table 2. Scores and language background of the HSs included in the qualitative analysis. 'NA' means not applicable. '-' means data is not available, as in neither the participant nor their parent(s) provided a response.

* Highest = 6, lowest = 1

	HS1	HS2	HS3	HS4	HS5	HS6
No. mistakes	0	2	0	2	2	3
Word count	31	32	29	29	30	24
Words per second	2.4	3.1	2.9	2.2	2.7	2.7
Mean length of utterance	6.2	8	9.7	5.8	7.5	6

Supplementary Table 3. Number of words and mistakes in the samples of the HSs included in the qualitative analysis

Speaker	Target word	Speakers' pronunciation (IPA)	Target pronunciation (IPA)	(jyutping)	Where speakers deviated
HS4	佢	$k^{hw}ɔːi^{23}$	$k^{h}ɵy^{23}$	*keoi5*	vowel
	娃	$waː^{21}$	$waː^{55}$	*waa1*	tone
	味	mei^{21}	mei^{25}	*mei2*	tone
HS5	佢	$kuːy^{23}$	$k^{h}ɵy^{23}$	*keoi5*	vowel
	個	$kə^{33}$	$kɔː^{33}$	*go3*	vowel
	青	$\widehat{tʃ}^{h}ɪŋ^{33}$	$\widehat{ts}^{h}ɪŋ^{55}$	*cing1*	consonant + tone
HS6	狗	$kɐu^{55}$	$kɐu^{25}$	*gau2*	tone
	娃	$k^{w}aː^{55}$	$waː^{55}$	*waa1*	consonant
	條	$t^{h}iaːu^{21}$	$t^{h}iːu^{21}$	*tiu4*	vowel

Supplementary Table 4. List of words that the HSs in the qualitative analysis produced in a way differing from typical Cantonese pronunciation. Tones 1–6 of jyutping described using Chao tone letters (in numeral equivalents) are 55/53 (high-level/high-falling), 25 (high-rising), 33 (mid-level), 21 (low-falling), 23 (low-rising), 22 (low-level).