

Chinese meets Malay meets English

*Bazaar Malay and the
Singaporean English word-final high*

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Qualifying paper

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- The word-final high tone is a rather odd feature of Singaporean English phonology.
- In this talk I hope to convince you that it comes from a pidgin form of Malay called Bazaar Malay.

Outline

- **Background**
 - Singapore's linguistic situation
 - Contact linguistics
- SgEng tone
- The case for Malay
- Other contact languages
- Explaining the links

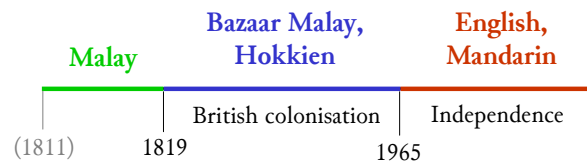
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- And this is how the talk will go: After I give you some background, I'll describe this piece of Singaporean English phonology, and I'll explain why it almost certainly comes from Malay, and not the other contact languages, such as Cantonese. And once we know what happened, we'll look at why it happened this way.
- So I'll start with some background on Singapore, and some of the questions I hope to answer in contact linguistics.



- Singapore is in Southeast Asia, so it's logical that there were many immigrants from East Asia and South Asia. And they brought a lot of languages with them.
- Firstly there are the so-called dialects of Chinese. They're really separate languages: for instance Mandarin <CLICK> and Cantonese <CLICK> are not mutually intelligible, but everyone is used to calling them dialects. The most important dialects in Singapore are Hokkien and Teochew <CLICK>, and they are said to be mutually intelligible, so I'll lump them together under their family name Min. And I am focusing on Chinese speakers today, <CLICK> so these are the first languages of those speakers.
- Now Singapore is in a Malay-speaking area <CLICK>, and the earliest Chinese immigrants came to the region in the 1600s and married Malays. They're called the Baba Chinese, and they had a Malay creole, Baba Malay. Only Babas speak Baba Malay, but all the ethnic groups in Singapore used to speak a pidgin form of Malay called Bazaar Malay <CLICK>. So the British didn't communicate with the Chinese in Chinese Pidgin English, they used Bazaar Malay instead. There are several varieties of Bazaar Malay, and we'll focus on the kind that emerged in Singapore.
- Now the Indian community in Singapore is pretty small and diverse, but more than half of them are Tamil speakers <CLICK>. And India had been colonised before Singapore, so some Indians came speaking English already <CLICK>. Now some of the immigrants weren't ethnic Indians, they had mixed Indian and British heritage, and I'll refer to them as Eurasians <CLICK>. Singapore had Eurasian immigrants from other places too, but the ones who spoke English were from India.
- And of course they interacted with each other so that Singaporean Malay and Singaporean Hokkien is recognisable. But I want to know what the original conditions of the interaction, so wherever possible I won't just rely on studies of Singaporean Tamil, for instance, I'll cite studies of Tamil that were done in India.

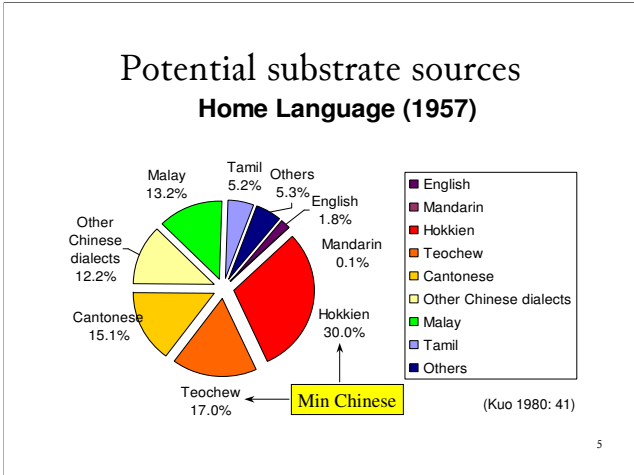
Lingua franca



What were the L1s just before English took over?




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- I only recently found out that before the British arrived, Singapore didn't have much of an indigenous community. There were some families of pirates, there were a few Chinese rubber farmers, and then in 1811 about 100+ ethnic Malays moved over from a neighbouring sultanate.
- But Malay was already the lingua franca in the region, so when the British came, it made sense for them to learn Malay. They needed manpower, so this is when most of the immigrants arrived. And the Chinese, like everyone else, learned some Malay pidgin, that's Bazaar Malay. But among themselves they used Hokkien, because that was the biggest dialect group.
- Now in the 1960s, Singapore became independent, and the original Chinese dialects started being displaced by English and Mandarin. For some Singaporeans, English is a first language, but there are also a lot of people who will say, "English isn't my first language, but it's my best language".
- <CLICK> Now, for the formation of Bazaar Malay, the nineteenth century is crucial. And I would say that for Singaporean English, the period around the 1960s is crucial, because that's just before English started to become really widespread. So let's go back to 1957.



- The 1957 census asked, “What’s the main language you speak at home?” Several things to note:
 - 1. All the warm colours are Chinese dialects, about 3/4 of the population, and you can see that the Min dialects of Chinese really dominate. That’s Hokkien and Teochew.
 - 2. Very few families are using Mandarin and English at home. It’s completely different nowadays.
 - 3. There’s no Baba Malay category, they just counted it as Malay.
- So with all of this in the mix, what does Singaporean English sound like?

Singaporean English

-  You told me earlier I would have got some people for you also.
-  It's also different from Singapore Mandarin. So Singaporeans will also know. If you speak to a Malaysian.
-  Especially being a teacher in Singapore now you need to do a lot – many other things than teaching right?

(Colloquial) SgEng = 'Singlish' ≠ Standard S'porean Eng

- <PLAY SOUND 1> That's a conditional. <PLAY SOUND 2> And number 3 is a younger speaker. <PLAY SOUND 3>
- So ah, now I very curious. My accent ah, got sound like those people or not? Because other Singaporean they will say I don't sound Singaporean. (Ah, you see over there? He always say my Singlish cannot make it.) Because from young I stay London, I stay Hong Kong, so I never learn my Singlish properly.
- Does it sound different from me? I don't sound Singaporean to other Singaporeans, because I was living in England and Hong Kong for too long when I was younger.

- What I was trying to do is formally called Colloquial Singaporean English. I'll call it by the popular term 'Singlish' because Colloquial Singaporean English is such a mouthful. This is a low-prestige, in-group variety. Normally it's spoken very fast and it can be unintelligible if you haven't lived in Singapore for a while. That's the kind which is often cited in creole studies.
- You see some traces of Singlish in the 1st speaker's syntax, because she knows me very well. But the 2nd and 3rd speakers are probably trying to do Standard Singaporean English instead. Standard Singaporean English looks pretty much like British English on paper, but as you noticed, the phonology is pretty close to the Colloquial variety.
- Mostly when you see SgEng or I say Singlish, I mean that you see this pattern very consistently in Colloquial Singaporean English, and there is a similar tendency in Standard Singaporean English. But when I need to distinguish the two kinds I'll use the names in full - Colloquial SgEng, Standard Singaporean English.
- Now that you've heard about Singapore and Singlish, let's step back and look at some questions in contact linguistics.

Pidgin and creole studies

- **Perennial issue: Creole genesis**
 - Universals, superstrate, substrates
 - Bioprogram denies substrate transfer
 - Bickerton (1981)
- **Needed (by substratists)**
 - Proof of transfer
 - Highly marked (phonology)

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- In pidgin and creole studies, the big question is creole genesis. Where do new creoles get their grammar? In principle there are three possible sources:
 1. Innate universal grammar,
 2. The superstrate, that's the language of the higher-prestige group. Usually it provides most of the vocabulary. So for example, with Haitian creole, it's French.
 3. The substrate languages, the language or languages of the lower-prestige group. So for Haitian creole, those would be the African languages originally spoken by the enslaved people.
- And this is where Singlish is interesting, because usually the substrates get lost in history, and you have to spend forever reading shipping records to figure them out. But with Singlish we have that mixture of languages, but we also have a much better continuous record of the substrate languages. And this is useful, because there is a creole genesis theory called Bickerton's bioprogram which completely denies that creoles get anything from the substrate languages.
- So people who support the substrate hypothesis need cases where we can prove there was transfer from the substrate. And this is tricky, because you need the creole to have a feature which is so unusual that it would never arise spontaneously from universals, the way the bioprogram predicts.
 - We have this for semantics, because there are creoles with idioms that could only come from certain African languages.
 - And we have this for syntax - John Singler found some unusual pronoun usage in a Liberian English creole which could only come from the local languages.
 - But nobody has ever definitively shown this with phonology. Nobody has ever said this creole is more phonologically marked than its superstrate, and we can only explain this by substrate transfer. And of course we want to know if one part of the grammar is mysteriously immune from transfer. So this is one question that we will look at.

SLA

- **Criteria for proving transfer**
 - Jarvis (2000)
- **Emerging area: L3 acquisition (Lx)**
 - Some principles of transfer known
 - Needed: phonology, unrelated families

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- The field of second language acquisition is interested in much the same questions, including: How do you prove that transfer has taken place? And some very nice criteria have been established; we'll use them later.
- But we've seen that Singapore was a very multilingual society, so we're going to need to draw on a new field of study, L3 acquisition. This is really short for L4, L5 and so on.
 - L3 researchers have some interesting findings on why people will prefer to transfer from one language instead of another.
 - But they have barely any work on phonology, especially prosody. And also, they don't really know what happens in a situation with three totally unrelated languages. So this is where Singapore has something to contribute.

Outline

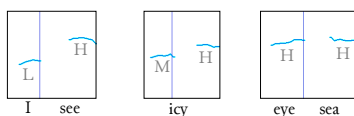
- Background
- **SgEng tone**
 - SgEng prosody
 - Is it marked?
- The case for Malay
- Contact languages
- Explaining the links

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•So that's the background. Now we'll take a closer look at one piece of Singlish prosody, and then we'll see whether it's the kind of highly marked feature that we need.

SgEng prosody

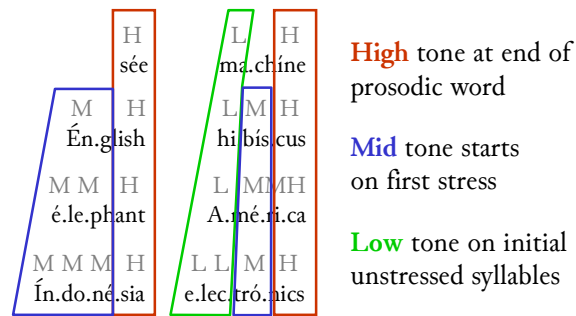
- **Stress weak but present**
 - Syllable-timing vs. stress-timing (Low et al 1999)
 - Duration, intensity significant (Ng 2008b)
- **Impression of tonal language, level tones**
 - Killingley (1972); Yeow (1987); Goh (1998) ...
- **Minimal triplet** (Wee 2008; Ng 2008a; Siraj 2008)



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- Singlish has stress. Most English speakers are very much struck by the weight and length given to every syllable, and that makes it hard to pick out the stressed syllables. But I've done some preliminary measurements and there is a very significant difference in duration and intensity.
- But several researchers have said that Singlish sounds like a tonal language. Yeow actually transcribed it with musical notes on a staff, and Goh points out that you normally see very level tone over each syllable.
- So last year, three independent proposals took this to its logical conclusion and proposed that Singlish uses three tones: Low, Mid and High. And here we have a very nice contrast for low-high, mid-high, and high-high.
- This is not a true minimal triplet for tone because the stress patterns of these items are also different. And on the next slide, we'll see how tone assignment is stress-sensitive.

SgEng tone assignment (Ng 2009)



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- This is how Singlish tone assignment works.
 - You get a high tone at the end of every word. Technically the prosodic word, which is usually the same as a content word.
 - Then on the first stressed syllable, the mid tone starts.
 - And if there are unstressed syllables before that, you get low tone on them.
- So I'll read the 1st column, and see if you can hear that mid tone getting longer: [READ column 1]. And with the 2nd column you should be able to hear a difference between low, mid and high: [READ column 2].
- There's some variation, but it goes back to stress or how you break things up into prosodic words, so it's covered by this generalization. So we know what happens in Singlish now. And we want to know, is this the kind of highly marked feature that the creole linguists are looking for?

Is stress + tone marked? No.

• **Stress** + **Tone** = **Stress + Tone**
superstrate **substrate** **creole**

– **Atlantic creoles:** Saramaccan (Good 2004),
Papiamentu (Remijsen & van Heuven 2005),
Guyanese Creole, Bajan (Devonish 2002)

• **Tonal Englishes**

– Hong Kong English (Wee 2008)
– Taiwan (Cheng 1968), China (Juffs 1990)
– Nigerian English (Gut 2005)

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- In one sense no, it's not marked. When a stress language like English meets a tonal language like Chinese, it's quite normal for the result to have both stress and tone.
- This is what happens in the Atlantic creoles because a lot of the enslaved people spoke tonal languages. Saramaccan (Surinam), Curaçao Papiamentu, Guyanese Creole, and Bajan (Barbados).
- And crucially for Singlish, people are now finding tone in some other World Englishes. For Hong Kong English it's actually old news, Wee is just formalising it. We also see it with people from Taiwan or China. And it's not just Chinese Englishes, you also get high, mid and low tone in Nigerian English.
- So in this situation, it's not really strange to have both stress and tone. BUT if you look at the way tone is assigned, then yes, Singlish is unusual.

Is high tone marked? Yes.

- **Word-final high in contact varieties**
 - Hong Kong English intimacy suffix (Matthews & Yip 1994:25)
 - Atlantic creoles ‘tone-shifted’ exceptions (Devonish 2002)
- **High tone as word boundary tone**
 - Known (Godjevac 2005) but not common

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•Remember that in Singlish the high tone only appears at the end of the word. Does this ever happen in other World Englishes or creoles?

•Hong Kong English has a floating high tone suffix. You use it for people and things you’re familiar with. So if you don’t know Winnie well, you’d say wi55.ni11. But if you’re a good friend, you might say wi55.ni35 instead.

•In many of the Atlantic creoles there are some lexical items where high tone appears further to the right than you’d expect from their English cognates. But these are exceptions and they need explaining. There’s a proposal that they started as vocative intonation in Barbados.

•So those are the cases that look a bit like Singlish and they are all exceptions. In all those contact languages, the rule is that high tone goes on stress.

•<CLICK> Now, I’m not saying that Singlish is the only language where high tone is a word boundary tone. This has been proposed for Serbo-Croatian. But it’s certainly not a common pattern.

Is SgEng high tone marked? Yes.

- **Counter to stress-tone relationship**
 - Stress has affinity for high tone
(De Lacy 2002)
- **Counter to learning experiments**
 - Chinese speakers reproduce L2 pitch categorically, e.g. English H*
(Chen & Au 2004)

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• And all those creoles are doing something we see in non-creoles too. The relationship between stress and tone is part of De Lacy's work on markedness and he thinks it's a cross-linguistic universal that high tone and stress are attracted to each other.

• Furthermore, that's what you get in experimental conditions when you ask Chinese speakers to repeat something in an unfamiliar language. They'll convert the pitch contours into Chinese tone categories, so the high pitch that's very common with English stress will get turned into the high level tone or the high falling tone.

• So Singlish tone really is very marked. It's not the kind of thing that arises spontaneously from innate universals, and that means we should start looking at transfer. Now you remember we saw that second language acquisition research has got nice clear criteria for proving transfer, so let's look at them now.

Criteria for proving transfer (Jarvis 2000)

- Same feature in source, target performance
- Different contact languages → different
- Same contact languages → same results
 - Not Mandarin, Taiwanese/Hokkien, Cantonese
 - Not (standard) English
 - Will show that it's non-L1 Bazaar Malay

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1. Firstly, you want to see speakers doing the same thing in the source language and the target language. If you see a French learner saying “Jean aime la” (John loves her), does he also do that in his first language?
 2. Secondly, in another situation with the same contact languages, you want to see the same thing happening. Any time you get English speakers learning French, you want to see some of them saying “John loves her” instead of “John her loves”.
 3. Thirdly, if there are different contact languages, you want to see different behaviour. So the other students in your French class shouldn't have the same pattern of mistakes. Now, notice that this essentially covers what the creole people need: this behaviour has got to be so highly marked that it doesn't spontaneously arise.
- We'll come back to these criteria. Every time we find a variety that looks like a possible source for Singlish tone, we'll come back to this slide and put it on the list.
 - For now, we can deduce that for Singlish tone the source language isn't Chinese, and it's probably not one of the usual colonial varieties of English either, or we'd be getting similar behaviour in other World Englishes or creoles. My argument is that it actually comes from a variety of Malay. So let's look at Malay now.

Outline

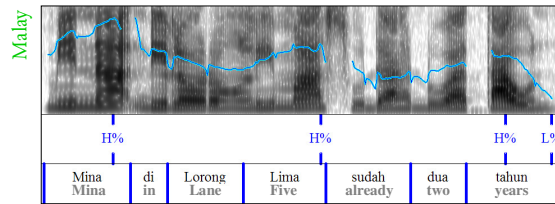
- Background
- SgEng tone
- **The case for Malay**
 - Natively spoken Malay
 - Bazaar Malay pidgin
 - Baba Malay creole
- Explaining the links

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• We'll look at native speaker Malay first, and then I'll discuss the Bazaar Malay pidgin since that was the most widely spoken, and then I'll explain why I don't agree with a recent proposal that the main source is the older Baba Malay creole.

Malay phrase-final high

- Phonological phrase **Final H%**
- Utterance **Final L%** (Lorentz 1997)



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• You probably remember that there are almost no indigenous Singaporean Malays, so it's hard to reconstruct the earliest native speaker Malay in Singapore. And there are many kinds of native speaker Malay. But the good news is that there's been a lot of recent work on intonation in different varieties, and they seem to behave in very much the same way.

• The clearest formalisation is Lorentz's proposal. He says in Malay, the phonological phrase has a high boundary tone on the last syllable, and the utterance has a low boundary tone on the last syllable. And with the last phrase in the utterance, the phrase-final high shifts over to the left to make room for the utterance-final low.

• And this is what you get with this speaker I recorded last winter. She's saying "Mina has lived in Lane 5 for 2 years". You can see a high at the end of the subject, a high at the end of the location, and then both the phrase high and the utterance low tone at the end. <PLAY>

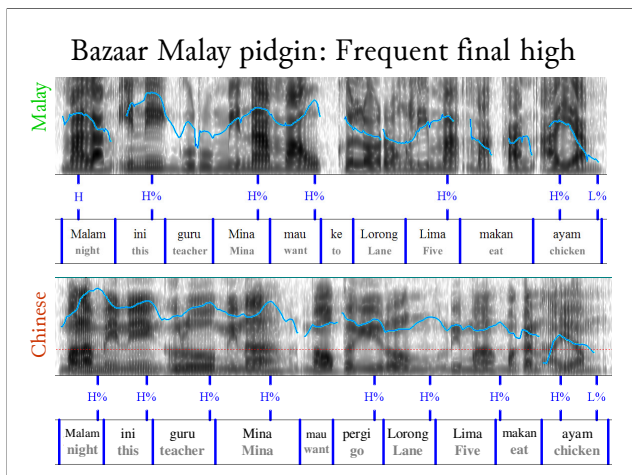
• Now some of the experimental studies don't get such a neat result. One of them said you get these two tones at phrase boundaries, but they can't predict when you'll get which one. And there are also a couple of studies which didn't get any low tone at all, utterance-finally they still report just the high tone. So it looks like the common denominator is the phrase-final high boundary tone. So let's look at our criteria for transfer now.

Criteria for proving transfer
(Jarvis 2000)

- Same feature in source, target performance
- Different contact languages → different
 - Malay phrase H%
- Same contact languages → same results

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- For the first criterion, we're not getting exactly the same thing in Malay and Singlish, but we are getting a high boundary tone.
- But the second criterion is very promising for us, because Malay wasn't a factor in any of the other World Englishes or Atlantic creoles we looked at just now.
- So that's native speaker Malay. But that's not the kind of Malay that the Chinese spoke, they were using the pidgin, Bazaar Malay. So let's compare native speaker Malay with Bazaar Malay.



- This is the native speaker and this is the Bazaar Malay speaker. They're both saying "Tonight, Mina's teacher wants to go to Lane 5 to eat chicken". But you can see that Bazaar Malay has a lot more word-final high tones, like Singlish. <PLAY BOTH RECORDINGS>

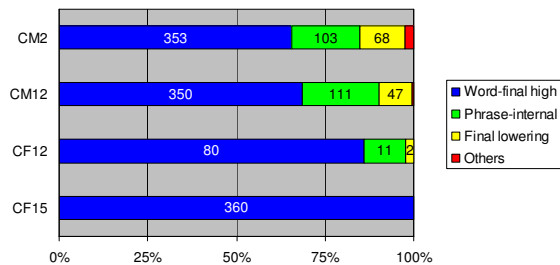
- *Lima* 'five' actually has a word-final high tone, it's just that the peak is delayed. So most of the words have a final high. There are only three exceptions: which are *mau* 'want', *makan* 'eat', and *ayam* 'chicken'.

- And if you compare with Malay, these are not really exceptions. [POINT] In *makan*, this is a word boundary, but it's not a phrase boundary and it wouldn't get a high tone in Malay. So the speaker is actually reproducing the Malay pattern here. [POINT] And for *ayam*, of course, we're getting a low at the end of the utterance, and that's also similar to Malay.

- So we're not getting the native speaker pattern of high tone only phrase-finally, but you can't really say it's word-final either, because there are exceptions. I looked at four Chinese Singaporeans who learned Bazaar Malay before English, and this sentence is actually pretty typical.

Bazaar Malay pidgin: Frequent final high

Word-final high vs. Phrase-final high vs. Exceptions



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- CM2 is the speaker we heard just now. I counted the word-final high tones, the phrase-internal exceptions like *makan*, the utterance-final exceptions like *ayam*, and the real exceptions.
- And you can see that CM2 is the closest to Malay. The others have fewer exceptions. And CF15 is interesting - she doesn't have any exceptions, because her high boundary tone is word-final just like in Singlish.
- And if we go back to Jarvis's criteria ...

Criteria for proving transfer
(Jarvis 2000)

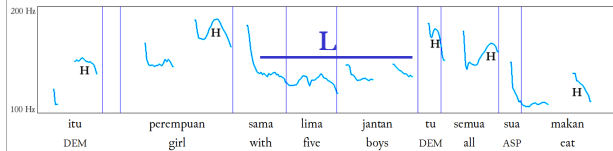
- Same feature in source, target performance
- Different contact languages → different
 - Bazaar Malay frequent H%
- Same contact languages → same results

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- We want the same feature in the source language and the target language. Well, we have nearly the same feature. Singlish has a word-final high, Bazaar Malay has a final high on most words. In fact it's a better match than native speaker Malay phrase-final high.
- Now there's actually been another hypothesis about the origins of Singlish tone, that's about to be published soon.

Baba Malay creole

- **Malay superstrate, Hokkien substrate**
 - SgEng founder population (L. Lim to appear)
- **No phrase-final high in Baba Malay (Wee 2000)**
 - But quite a few counter-examples:



- **Prestige: Babas high, Colloquial SgEng low**

•<CLICK> Lisa Lim says yes, the Bazaar Malay pidgin was very widely spoken, but the Baba Malay creole is actually more important for the development of Singlish. Because the Babas started sending their children to English schools very early compared to the other Chinese, so they can be considered a founder population for Singlish.

•<CLICK> And she supervised an undergraduate thesis which essentially makes this argument. It was in 2000 but it foreshadows a lot of the current work: It says that Baba Malay has a word-final high like Singlish, not a phrase-final high like Malay. Now, it's true that Baba Malay has this tendency, but it's really not an absolute. <CLICK> I asked this speaker to translate "1 girl and 5 boys have eaten". You can see there are several words in a row without a word-final high. And that's something I never see with Bazaar Malay speakers. So really, Baba Malay and Singlish are not that similar. Bazaar Malay and Singlish are more similar.

•And this is actually what you would expect, because the Baba community has relatively high socio-economic status, and Colloquial SgEng is low prestige. You don't associate them with each other. But I would definitely agree that the Babas had a huge influence on SgEng, just the standard variety more than the colloquial variety. And probably they're the reason why the standard variety still has a tendency towards the word-final high.

Criteria for proving transfer
(Jarvis 2000)

- **Same feature in source, target performance**
- **Different contact languages → different**
 - Bazaar Malay (more) frequent H%
 - Baba Malay (less) frequent H%
- **Same contact languages → same results**

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- So for the first criterion,
 - we have Bazaar Malay, which is a better match for Singlish and was spoken by more people,
 - and we have Baba Malay, which has the same tendency, just weaker, and probably it had a reinforcing effect.
- And they're both fine by the second criterion. That is, either one could explain why Singlish turned out differently from Hong Kong English.
- We haven't dealt with the last criterion yet, but let me just say that yes, we can confirm that this mix of languages tends to result in a frequent final high.

Criteria for proving transfer (Jarvis 2000)

- Same feature in source, target performance
- Different contact languages → different
- Same contact languages → same results
 - Chinese-Malay: Loanwords, Baba Malay
 - Chinese-Malay-English: Malaysian English

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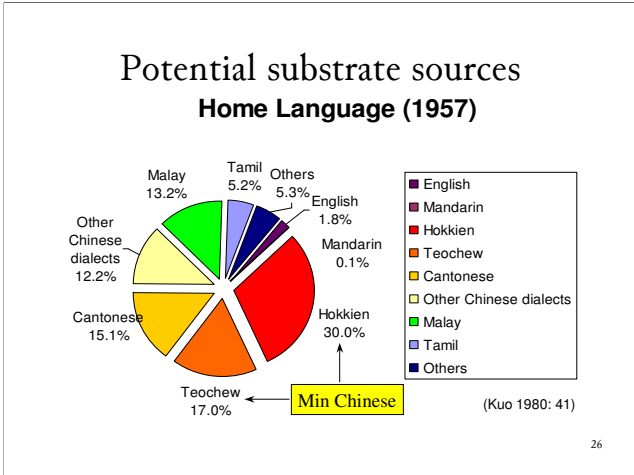
- This shows up in Chinese-Malay contact: We see a lot of that final high in the loanwords that Hokkien borrowed from Malay. And of course we saw that tendency in Baba Malay as well.
- And for Chinese-Malay-English contact: Chinese Malaysians sound a lot like Chinese Singaporeans.
- Now the trouble with Singapore is there are so many languages floating around that we can't stop here. We need to look at the other possibilities and see if any of them could be relevant too.

Outline

- Background
- SgEng tone
- The case for Malay
- Other contact languages
 - **Chinese substrate**
 - Superstrate varieties
- Explaining the links

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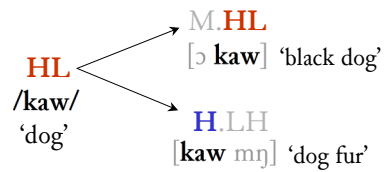
•So since we were already looking at substrates, let's look at what people traditionally consider the substrate, that is, the first language, which was Chinese.



- And you may remember, we can group Hokkien and Teochew together because they're mutually intelligible and they belong to the same subfamily, called Min Chinese. In fact they're both Southern Min. So we'll look at that first.
- And then we'll look at Cantonese, which is the next biggest Chinese subfamily.

Min tone sandhi

Tone → **Base form** / $_]_{\text{PPh}}$
→ **Changed form** / elsewhere



Tonal faithfulness marks end of PPh (Chen 2000)

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- Hokkien has at least three level tones and two contour tones, depending on the exact variety, and Teochew has the same or more. but as far as I know there's really only one phonological process involving tone. But it is relevant.
- Each tone has two forms: a base form and a changed form. For instance, tone 2 is the falling tone, and under tone sandhi it changes to high level. You will only get the faithful form at the end of a phonological phrase. Everywhere else you will see the changed form.
- This applies to ALL the tones in all the dialects. Individual tones may have different contours, but they all undergo sandhi. So what we're seeing is that Min Chinese doesn't have a specific tone that marks the end of a phrase, the way Malay does, but it uses tonal faithfulness to mark those boundaries. And this may have predisposed learners to look for a tonal means of indicating prosodic breaks.
- Now how about Cantonese?

Cantonese: Hong Kong English

(Wee 2008)

HKE	HKE with high suffix	SgEng
Winnie (stranger)	Wínnie (friend)	Wínnie (either case)
H.L	H.MH	M.H

- **Non-final stress** HKE high, SgEng mid
- **Final high** HKE rising, SgEng level

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- Cantonese has FOUR level tones, so HML don't work very well - just for this slide, treat them as transcriptions and not underlying tones.
- And unlike Min Chinese, Cantonese has quite a few tonal processes. But for our purposes the relevant one is the high suffix I mentioned earlier, that you use with things and people you're familiar with. So if you're talking about a stranger, there's no high suffix, you say wi55.ni11. But if Winnie is a friend, you say wi55.ni35. So it's as if you are adding a high tone suffix. The low tone is changing to a high tone. And in Singlish, there's only one choice, wi33.ni55.
- Now we already know that Singlish tone probably isn't the result of contact with Cantonese, because the normal Hong Kong English example on the left doesn't sound like Singlish. But there would also be a problem with arguing that Singlish just has this Cantonese high suffix on every single word, because
 - firstly, in Hong Kong English all stressed syllables get high level tone, and in Singlish we're getting mid tone because high tone is reserved for the last syllable.
 - Secondly, with these final unstressed syllables that would get low tone otherwise, adding a high suffix creates a rising contour. And the normal shape of the Singlish final high is a level tone.
- So it's interesting that Cantonese has this high suffix, but I don't think we can say that Cantonese is the source of word-final high in Singlish.

Outline

- Background
- SgEng tone
- The case for Malay
- Other contact languages
 - Chinese substrate: Min, Cantonese
 - **Superstrate varieties**
 - Irish Eng • Indian Eng • Eurasian Eng
- Explaining the links

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- Now we've looked at the main first languages of the Chinese speakers. That's what a traditional substrate account would do. And there's nothing there to explain the Singlish final high tone.
- But of course, we shouldn't just look at the substrate, we should also look at the superstrate. Probably there's nothing in normal colonial English that will answer our question, because we don't have this final high in other contact varieties, but are there any regional dialects which were especially influential in Singapore? So first I'll look at Irish English, then Indian English, and then Eurasian English.

Irish English

- **Catholic convent schools** (R. Lim 2008)
 - Early English education for girls
- **Irish Eng doesn't quite match SgEng**
 - Ulster rise-plateau (Hickey 2007)
 - Cork fall on multiple stresses
- **Convents not associated with CollSgEng**
 - Convent girls known for standard English

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• Irish English is known for its unusual prosody, and Irish nuns set up some of the first English girls' schools in Singapore. And girls' education is important in creole genesis or indigenising World Englishes, because it matters what mothers are speaking to young children.

• And we know Irish English has distinctive intonation patterns. As far as I can understand, and please correct me if I'm wrong,

- in Ulster English the syllable with main phrasal stress will start low but there's a very audible rise, and then the next few words will stay high. But the fall and the rise are both within the stressed syllable, so it doesn't sound like people would interpret that as a word-final high boundary tone.

- Now in County Cork apparently pitch can fall on several stressed syllables within the sentence. You could interpret that as a high boundary tone, but pitch will always rise on Singlish stressed syllables. So that's not really a good match either.

• And finally, convent education is associated with standard English. In my experience, and I'm a convent girl myself, there isn't even a very strong tendency towards the word-final high, that's why I hesitate to say they're associated with standard Singaporean English. So much for Irish English.

Indian English

- **Frequent L*+H in some Indian English**
 - Wiltshire & Harnsberger (2006)
- **But Singapore's Indian population is small**
 - 16% (1860) (Turnbull 1989)
 - 6-10% (1880 onwards)
- **Even in early English education**
 - Overrepresented, but only roughly equal to number of 'Europeans' (Gupta 1994:40)

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- Now some recent work on Indian English has noted that there is very often a low tone on the stressed syllable and a trailing high tone starting after that. English has this also in list intonation, e.g. China, Malaysia, India, et cetera. But it seems more frequent in Indian English. And this also shows up in various South Asian languages, like Tamil and Bengali, so presumably that's where it comes from.
- This trailing high tone is not quite the same as Singlish, because it creates a very noticeable rise on stressed monosyllables, and in Singlish those will get a level high tone. But it is similar and it could be misinterpreted as a word-final boundary tone, because it often reaches a peak on the last syllable of the word. So this is promising.
- This similarity between Singlish, Indian English and Tamil has actually been mentioned before in an undergraduate thesis. But nobody ever quite dared to say that the Singlish pattern comes from Indian English because Singapore's Indian population is so small. In the really early years the British thought Indians were easier to work with than the Chinese, so they subsidised a lot of short-term immigrants. But after 1860 the numbers go down a lot, and over the 20th century it's usually been between 6 and 10%.
- The early English schools did have a disproportionate number of Indian students and teachers, but only about the same number as the "Europeans", which includes English, Portuguese, Americans, and so on. The biggest ethnic group in the early English schools were actually the Eurasians ...

Eurasian English

- **Eurasians dominated early English schools**
 - Many originally from South Asia (Gupta 1994)
- **Climb-Fall vs. BrEng Fall** (Valentine 1978)
 - Anglo-Indians sound ‘lively’: *The bus is ^coming*
 - Suggests lack of deaccenting, not L*+H
- **“Native speaker” intonation** (Bayer 1986:7)
 - Anglo-Indians sound different to Indians
 - Implies lack of L*+H

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•As I mentioned earlier, Eurasian, in the British colonies, means your family tree is partly ‘European’ and partly Asian. And they formed a sort of ethnic group because nobody else wanted to marry them: the British considered them natives and everyone else thought they were too European.

•The Eurasians were the biggest group in the early English schools, because the Europeans would send their children back home to school, and the Eurasians couldn’t do that. And as we saw on the map, many Singaporean Eurasian families originated in India. So I thought hey, maybe they also had the Indian English L*+H pitch accent! But unfortunately it looks like they didn’t.

•I looked at studies of Eurasian English within India. They call them Anglo-Indians because ‘Eurasian’ apparently became a pejorative term. In Valentine, the closest thing to a L*+H is when she says that there are times when British English has a FALL, but Anglo-Indian English has a CLIMB-FALL. And as an example, she says that the British would say “The bus is \coming”, but Anglo-Indians would say “The bus is ^coming.” And that doesn’t sound like a L*+H, that sounds like “coming” wasn’t deaccented. Which is actually something she also says in the article, that Anglo-Indians don’t deaccent old information. So, from Valentine alone, Anglo-Indians don’t seem to have L*+H.

•Now Bayer says she gave some recordings to English and American judges, and “Whatever may have been their other comments, all were of the opinion that the intonation pattern indicated that they were native speakers of English.” And then she says that explains why other Indians think Anglo-Indian English sounds different. So that’s pretty conclusive. If there’s any L*+H, it can’t be very frequent.

•And what Bayer is actually true in Singapore too. Let me play a video clip from a documentary for you. I didn’t record this myself, but it’s pretty clear that she’s Eurasian.

Criteria for proving transfer (Jarvis 2000)

- **Same feature in source, target performance**
- **Different contact languages → different**
 - Bazaar Malay (more) frequent H%
 - Baba Malay (less) frequent H%
 - Indian English L*+H
- **Same contact languages → same results**
 - **Chinese-Malay:** Loanwords, Baba Malay
 - **Chinese-Malay-English:** Malaysian English

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• So after looking at the superstrate varieties, we found something that could have given rise to a word-final high tone, and that's Indian English. But there weren't enough speakers, so again, I would say this probably had a reinforcing effect, like Baba Malay.

• And one last thing about Indian English: it doesn't explain all the other things on this slide, like why Hokkien loanwords from Malay also tend to have a final high. Our hypothesis that Chinese-Malay contact tends to create a frequent final high is a necessary and sufficient explanation for a lot of things that Indian English alone can't explain.

Outline

- Background
- SgEng tone
- The case for Malay
- Other contact languages
- **Explaining the links**
 - Chinese → Bazaar Malay → SgEng

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- So my conclusion after looking at all this data and literature review is that Chinese-Malay contact is the primary source for Singlish tone, and probably the Bazaar Malay pidgin because it's closer to Singlish than the Baba Malay creole.
- Now we know WHAT happened. But we still don't know why it happened in this way. There are several questions to answer.

Explaining the links

- **Chinese → Bazaar Malay**
 - Why a more frequent final high?
- **Bazaar Malay → SgEng**
 - Why was transfer L2 → L3?
 - Why a more frequent final high?

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• Chinese -> Bazaar Malay

- When the Chinese learned Bazaar Malay, how come the final high boundary tone seems to be more frequent? You remember native speaker Malay has a phrase-final high tone, and Bazaar Malay it's on nearly every word.

• Bazaar Malay -> Singlish

- And when they learned Singlish after that, how come they transferred the final high from Bazaar Malay? It's not their first language, some dialect of Chinese is usually their L1.
- And if they're going to transfer the final high, how come it doesn't stay somewhere between word-final and phrase-final? Why does it now become word-final?

- So let's look at the Chinese -> Bazaar Malay part first. How come the Bazaar Malay final high is more frequent than the Malay phrase-final high?

Why a more frequent final high?

- **Creoles: Foreigner talk hypothesis**
(Schuchardt 1909/1980; Bloomfield 1933:472)
 - Non-native directed speech: slower, more pauses, exaggerated intonation (Hatch 1983:155)
 - More frequent phonological phrases (Avery et al 1985)
- **Chinese speakers reproducing input**
 - Short phrases and frequent boundary tones

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• There are two possible answers for this question, and one of them is the foreigner talk hypothesis. Bloomfield calls this baby talk, but the politically correct term nowadays is non-native directed speech.

• In our case, it would mean that when the Malay native speakers talked to the Chinese, they changed the way they spoke. And there's quite a lot of work showing that when you talk to foreigners you speak more slowly, you have more pauses, and sometimes you exaggerate your intonation.

• This has been analysed as shorter and more frequent phonological phrases. And remember, the final high in Malay is a phrase boundary tone.

• So what if the Chinese speakers are just reproducing foreigner talk? They're hearing a lot of short phrases, so there are a lot of final high tones. This is consistent with what we know from learning experiments: if you give adults variable input they will reproduce it.

• So the foreigner talk hypothesis is one possible explanation.

Why a more frequent final high?

- **SLA: Processability theory** (Pienemann 2005)
 - Must master each stage, **then** progress to next
 - Word → Lexical category → Syntactic category
→ Sentence → Embedded sentence
 - Malay phonological phrase is sensitive to syntax
(Amran 1974, Zuraidah 1996)
- **Speakers have not mastered syntax yet**
 - Can't do syntax-dependent phonology like H%

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• Another possibility comes from second language acquisition research, and it's called processability theory. This just means that learners have to master one stage before they can handle the next. So they have to be able to identify lexical items in their input before they can figure out what to do with different lexical categories, and after that they can start to handle syntactic phrases, and then after they master the VP they can learn to manage sentences, and after that they can manage embedded sentences.

• Now nobody has looked at any phonological implications of this theory yet. But the Malay researchers say that the Malay phonological phrase is sensitive to syntax. You try to line up the right edge of the NP, VP or PP with a phrase-final high tone.

• So what if the Bazaar Malay speakers haven't yet mastered the syntactic phrase level of processing? Then they can't line up the high boundary tone with a syntactic phrase, or at least they can't do that systematically. The rest of the time maybe they'll just align the phonological phrase with the word instead.

• Now I think it might be possible to check these hypotheses by getting better statistics on the Bazaar Malay final high.

• If it tends to match Malay foreigner talk, then that would support the foreigner talk hypothesis.

• For processability theory, I'm guessing that it would be easier for Chinese speakers to learn Malay syntax where it's identical to Chinese. So when the word order is different in Malay and Chinese, you should get a lot of final high tones because the speakers can't align the phrase with syntax properly. But when the word order is the same then the final high should behave more like Malay.

• In either case, this is not a mystery any more.

Explaining the links

- **Chinese → Bazaar Malay**
 - Why a more frequent final high?
 - Shorter PPh → More frequent H%
- **Bazaar Malay → SgEng**
 - Why was transfer L2 → L3?
 - Why a more frequent final high?

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• We have two possible explanations for why Bazaar Malay has a more frequent high boundary tone. Basically both of them depend on a shorter phonological phrase.

• Now the next thing we want to understand is the transfer from Bazaar Malay to Singlish. First, why are these Chinese speakers transferring the final high from Bazaar Malay into English? We expect transfer from L1, but we're getting L2-L3 transfer.

Why was transfer L2 → L3?

- **Foreign language effect**
 - Block transfer from L1, prefer transfer from L2
 - Hammarberg (2001), etc.
- **Transfer based on similarity**

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- The 3rd language acquisition literature says two things could be happening here.
- 1st, the foreign language effect. Speakers are deliberately blocking their first language because they want their L3 to sound like a foreign language. For example,
 - Hammarberg studied an American woman who had lived in Germany for some time. When she moved to Sweden, her Swedish had a very strong German accent, and she actually told him, “I don’t want to sound American when I speak Swedish.”
 - And Khaldi talks about Arabic speakers learning English. Apparently there are some relative clause structures which are quite similar in Arabic and English, but the learners wouldn’t accept them, because they were so sure that English relative clauses must look more like French.
- So it’s possible that these Chinese Singaporeans don’t want to sound Chinese when they speak English, and they use their knowledge of Malay instead. This might be true, but I’m not sure how to test it.
- The other possibility is that they’re transferring because they think that Bazaar Malay and English are similar in some way.

Transfer based on similarity

- **Transfer when languages seem similar**
 - Psychotypology (Kellerman 1983; Ringbom 2007)
 - Genetic relatedness or pure typology?
- **Transfer when features seem similar**
 - Creoles: Congruence/typological constraint
 - Weinreich (1953); Thomason & Kaufman (1988)
 - SLA: Transfer to somewhere (Andersen 1983)

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- And there are two versions of this hypothesis. They're not exactly the same but they're both relevant for us.
1. One says you should transfer when the two languages seem similar to you. This is called psychotypology. For instance, in Finland everyone learns both Finnish and Swedish, even though some families have Swedish as an L1. But Ringbom says on the English exams, everyone makes mistakes that are influenced by Swedish. There are almost no mistakes influenced by Finnish, even from the 1st-language Finnish students.
 - And that's a very nice demonstration, but it brings up a problem that people have had in proving psychotypology. Ideally you need three languages in contact, but usually in such cases two of the languages are related to each other in some way. So you don't know whether people are doing sort of psychohistorical linguistics and looking for genetic relatedness, or whether they're really doing psychotypology based on typological features. The theory predicts that it's perceived typology that matters.
 2. The second type of transfer based on similarity is when you see the target language is doing something that you recognise from another language, and you go aha! they're the same.
 - In creole research it's called the congruence constraint or the typology constraint, and in second language research it's called transfer to somewhere.
 - So when Americans learn French, they'll sometimes say "John loves her" like in English, because you can get subject-verb-object word order in French with names or common nouns. It's not correct with pronouns, but the speakers see related cases and so they think it's fine. But French speakers learning English will never say "John her loves", because English never has subject-object-verb word order.
- So how does this work for our Chinese-Malay-English situation?

Chinese vs. Malay vs. English

- **Relatedness**
 - Sino-Tibetan vs. Austronesian vs. Indo-European
- **(Psycho)typology**
 - Chinese has lexical tone
 - Bazaar Malay, English both lack lexical tone
- **Congruence**
 - Malay H% ~ Indian English L*+H?

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- In terms of relatedness, we have languages from 3 unrelated macro-families. Speakers probably don't think Malay and English are related because they associate them with different continents.
- In terms of typology, Chinese has lexical tone, but Bazaar Malay and English are similar because they both lack lexical tone. So that would encourage transfer.
 - And one of the speakers I talked to actually more or less that Bazaar Malay isn't tonal.
- And now the congruence constraint. It's true that speakers wouldn't get the idea that standard English has a high boundary tone like Bazaar Malay. But remember, we said that you might get that idea from Indian English. There aren't a lot of Indian English speakers, but transfer to somewhere says you only need a limited number of cases to make you think this feature is okay in the target language.
- So I think we can confirm that both psychotypology and the congruence constraint apply to Bazaar Malay->English transfer.

Explaining the links

- **Chinese → Bazaar Malay**
 - Why a more frequent final high?
 - Shorter PPh → More frequent H%
- **Bazaar Malay → SgEng**
 - Why was transfer L2 → L3?
 - Foreign language effect, (psycho)typology
 - Why a more frequent final high?

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• And now our remaining question is why the final high becomes word-final in Singlish.

Why a more frequent final high?

- **Creoles: Transfer constraints**
- **Congruence**
 - Indian English has one or more L*+H per content word (Tamil: Keane to appear)
- **One-to-one principle ~ semantic transparency**
 - Andersen (1984); Seuren & Wekker (1986)
 - Word-final high better than variable placement

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• There's been some work on what kind of thing tends to get transferred from the substrate into the creole. In the current literature they're called transfer constraints. Let's treat them as constraints on what creoles like to have. I'm going to look at five constraints. (I'm leaving out simplicity, because it's too hard to evaluate.)

• Firstly, **congruence** again. We said the Indian English L*+H might be a factor. Indian English allows one high or maybe more on each content word, and with Bazaar Malay you get one high or maybe less on each content word. So the pressure would be to get closer to the Indian English pattern and you might end up with one high on each word.

• Secondly, **the one-to-one principle**, or semantic transparency, says one structural unit should match one unit of meaning. So this constraint says it's better to have a high tone consistently on each word like in Singlish, whereas in Bazaar Malay you're never sure if the high tone goes with a word or a phrase. In fact this constraint says you should already get this pressure operating within Bazaar Malay, which explains why CF15 already has a word-final high in her Bazaar Malay.

Why a more frequent final high?

- **Perceptual salience**
 - Naro (1978); Siegel (2008); Mufwene (2008)
 - Presence of H more noticeable than absence
- **Frequency**
 - Siegel (2008); Mufwene (2008)
 - For each speaker, high is frequent
- **Markedness**
 - Evaluate with respect to substrate (Mufwene 1990)
 - H in any position is unmarked in Chinese

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• **Perceptual salience** says you should keep the things that are perceptually salient. Now high tone is pretty salient. I think you would notice when it was there, and when it wasn't there you might think, oh, maybe the pitch range was small and I didn't notice it, or maybe the speaker was talking too fast and the pitch didn't have time to get very high. So you might try to put it back when you thought it was missing.

• **Frequency** is very simple, it says you should keep things that you hear a lot. And definitely each Bazaar Malay speaker has a lot of high boundary tones. (Also Indian English has a lot.) And it may even be that there were a lot of speakers like CF15 who had a final high on every word, I just didn't happen to interview them. Although I talked to a lot of people, so I don't really think this is the case.

• And finally, **markedness**. And this is one constraint that we would expect to be against the Singlish word-final high, because we already said that the word-final high is very marked. But at the same time Mufwene says that markedness should be evaluated with respect to the substrate, and high tone isn't particularly marked for Chinese speakers. Any tone can pretty much occur anywhere. So we said there is no reason why it should arise spontaneously. But because Chinese speakers are so comfortable with tone, there's no special pressure to avoid high tone anywhere. So if you look at it that way, markedness wouldn't really militate against the word-final high.

Explaining the links

- **Chinese → Bazaar Malay**

- Why a more frequent final high?
 - Shorter PPh → More frequent H%

- **Bazaar Malay → SgEng**

- Why was transfer L2 → L3?
 - Foreign language effect, (psycho)typology
- Why a more frequent final high?
 - Favoured by transfer constraints

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• So I think now we have our answer to our final question. The Bazaar Malay final high became a word-final high in Singlish, because it was favoured by a lot of constraints operating in creole genesis.

• And now we are ready to conclude.

Conclusion

- **Word-final high in SgEng**
 - Necessary and sufficient source: Bazaar Malay
 - Reinforced by: Baba Malay, Indian English
- **Pidgins and creoles**
 - Non-L1 substrate(s) for SgEng
 - Phonetic study of Bazaar Malay
- **L3 acquisition**
 - Phonological (prosodic) transfer
 - Transfer between unrelated macro-families

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• In this paper, we've shown that Chinese Singaporeans probably get their word-final high tone in Singlish from Bazaar Malay. You need the Malay influence to explain why Singlish doesn't turn out like other Chinese Englishes. Bazaar Malay is closer to Singlish and more widespread than Baba Malay or Indian English, but both of those probably had a reinforcing effect.

• For pidgin and creole studies,

- we haven't managed to isolate one substrate source for Singlish tone, but we did show the most likely source is a non-L1 substrate, which I think is interesting, because usually substratists only work with the 1st language.

- We also have phonetic data on Bazaar Malay prosody. I think there hasn't been any before, and it's interesting to compare with the other work on Malay intonation which is happening now.

• And for 3rd language acquisition,

- We have demonstrated a case of phonological transfer in prosody,

- and we have demonstrated that transfer between unrelated macro-families follows previous predictions.

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References

- Amran Halim. (1974). *Intonation in Relation to Syntax in Bahasa Indonesia*. Jakarta: Djambatan.
- Andersen, R. W. (1983). The transfer to somewhere principle. In S. Gass & L. Sclinker (Eds.), *Language Transfer in Language Learning* (pp. 177-201). Rowley, MA: Newbury House.
- Andersen, R. W. (1984). The one to one principle of interlanguage construction. *Language Learning*, 34(4), 77-95.
- Avery, P., Ehrlich, S., & Yorio, C. (1985). Prosodic domains in foreigner talk discourse. *Toronto Working Papers in Linguistics*, 5, 1-30.
- Buyer, J. M. (1986). *A sociolinguistic investigation of the English spoken by the Anglo-Indians in Mysore City*. Hyderabad: CIEFL.
- Bickerton, D. (1981). *Roots of language*. Ann Arbor, MI: Karoma.
- Bloomfield, L. (1933). *Language*. New York: Holt.
- Chen, C. C. Jr., & Au, C.-P. (2004, March). *Tone Assignment in Second Language Prosodic Learning*. Presentation at Speech Prosody, Nara, Japan.
- Chen, M. Y. (2000). *Tone Sandhi: Patterns across Chinese dialects*. Cambridge: Cambridge University Press.
- Cheng, C. C. (1968). English stresses and Chinese tones in Chinese sentences. *Phonetica*, 18, 77-88.
- De Lacy, P. (2002). The interaction of stress and tone in Optimality Theory. *Phonology*, 19(1), 1-32.
- Devonish, H. (2002). *Talking rhythm, stressing tone: The role of prominence in Anglo-West-African Creole Languages*. Kingston: Arawak Publications.
- Godjevac, S. (2005). Transcribing Serbo-Croatian intonation. In S.-A. Jun (Ed.), *Prosodic Typology* (pp. 146-171). Oxford: Oxford University Press.
- Goh, C. C. M. (1998). The level tone in Singapore English. *English Today*, 14(1), 50-53.
- Good, J. (2004). Tone and accent in Saramaccan: Charting a deep split in the phonology of a language. *Lingua*, 114, 575-619.
- Gupta, A. F. (1994). *The Step-Tongue: Children's English in Singapore*. Clevedon, PA: Multilingual Matters.
- Gut, U. (2005). Nigerian English prosody. *English World-Wide*, 26(2), 153-177.
- Hammarberg, B. (2001). Role of L1 and L2 in L3 production and acquisition. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives* (pp. 21-41). Clevedon: Multilingual Matters.

References

- Hatch, E. M. (1983). *Psycholinguistics: A Second Language Perspective*. Rowley, MA: Newbury House.
- Hickey, R. (2007). *Irish English: History and present-day forms*. Cambridge, UK; New York: Cambridge University Press.
- Jarvis, S. (2000). Methodological rigor in the study of transfer: Identifying L1 influence in the interlanguage lexicon. *Language Learning*, 50(2), 245-309.
- Juffs, A. (1990). Tone, syllable structure and interlanguage phonology: Chinese learners' stress errors. *IRAL: International Review of Applied Linguistics in Language Teaching*, 28(2), 99-117.
- Keane, E. (To appear). Tamil. In S.-A. Jun (Ed.), *Prosodic Typology II: The Phonology of Intonation and Phrasing*. Oxford: Oxford University Press.
- Kellerman, E. (1983). Now you see it, now you don't. In S. Gass & L. Selinker (Eds.), *Language Transfer in Language Learning* (pp. 112-34). Rowley, MA: Newbury House.
- Killingley, S.-Y. (1972). Clause and sentence types in Malayan English. *Orbis*, 21(2), 537-548.
- Kuo, E. C. Y. (1980). The sociolinguistic situation in Singapore: Unity in diversity. In E. A. Afendras & E. C. Y. Kuo (Eds.), *Language and Society in Singapore* (pp. 39-62). Singapore: Singapore University Press.
- Lim, R. (2008). *An Irish tour of Singapore*. Singapore: Two Trees.
- Lorentz, O. (1997, Jan). *Stress and prominence in Indonesian Malay*. Presentation at the First Symposium on Malay and Indonesian Linguistics, Penang, Malaysia.
- Low, E. L., & Grabe, E. (1999). A contrastive study of prosody and lexical stress placement in Singapore English and British English. *Language and Speech*, 42(1), 39-56.
- Matthews, S., & Yip, V. 1994. *Cantonese: A comprehensive grammar*. London; New York: Routledge.
- Mufwene, S. S. (1990). Transfer and the substrate hypothesis in creolistics. *Studies in Second Language Acquisition*, 12(1), 1-23.
- Mufwene, S. S. (2008). *Language Evolution: Contact, competition and change*. Continuum, London; New York.
- Naro, A. J. (1978). A study on the origins of pidginization. *Language*, 54(2), 314-347.
- Ng, E.-C. (2008a, July). *Malay meets Chinese meets English: Where does Colloquial Singaporean English word-level tone come from?* Presentation at Interdisciplinary Approaches to Transfer, Crosslinguistic Influence and Contact-Induced Change Workshop, UWE Bristol.
- Ng, E.-C. (2008b, November). *Affixation, compounding and the prosodic word in Singaporean English*. Presentation at 50 Workshop on Prosodic Alignment at the Word Level, Institut für Deutsche Sprache, Mannheim.

References

- Ng, E.-C. (2009). Non-plateaus, non-tonal heads: Tone assignment in Colloquial Singaporean English. *Chicago Linguistic Society (CLS)*, 45.
- Pienemann, M. (2005). An introduction to processability theory. In M. Pienemann (Ed.), *Cross-Linguistic Aspects of Processability Theory* (pp. 1-60). Amsterdam: John Benjamins.
- Remijsen, B., & van Heuven, V. J. (2005). Stress, tone and discourse prominence in the Curaçao dialect of Papiamentu. *Phonology*, 22, 205-235.
- Ringbom, H. (2007). *Cross-linguistic Similarity in Foreign Language Learning*. Clevedon: Multilingual Matters.
- Schuchardt, H. (1980). The lingua franca. In G. G. Gilbert (Ed., Trans.), *Pidgin and Creole Languages: Selected essays by Hugo Schuchardt* (pp. 65-88). London: Cambridge University Press. (Original work published 1909).
- Seuren, P. A. M. & Wekker, H. (1986). Semantic transparency as a factor in creole genesis. In P. Muysken & N. Smith (Eds.), *Substrata versus Universals in Creole Genesis* (pp. 57-70). Amsterdam: John Benjamins.
- Siegel, J. (2008). *The Emergence of Pidgin and Creole Languages*. New York: Oxford University Press.
- Siraj, P. (2008, September). *Stress-dependent word tone in Singaporean English*. Poster presentation at TIE 3, Lisbon.
- Thomason, S. G. & Kaufman, T. (1988). *Language Contact, Creolization, and Genetic Linguistics*. Berkeley; Los Angeles; Oxford: University of California Press.
- Turnbull, C. M. (1989). *A history of Singapore, 1819-1988*. Singapore; New York: Oxford University Press.
- Valentine, E. (1978). Some non-segmental features of Anglo-Indian English. In M. Manuel & K. A. Paniker (Eds.), *English and India: Essays presented to Professor Samuel Matbai on his seventieth birthday* (pp. 190-212). Madras: Macmillan.
- Wee, K. S. G. (2000). *Intonation of the Babas: An auditory and instrumental study*. Academic Exercise, National University of Singapore.
- Wee, L.-H. (2008). More or Less English: Two Phonological Patterns in the Englishes of Singapore and Hong Kong. *World Englishes*, 27(3/4), 480-501.
- Weinreich, U. (1953). *Languages in Contact: Finding and problems*. The Hague: Mouton.
- Wiltshire, C. R., & Harsberger, J. D. (2006). The influence of Gujarati and Tamil L1s on Indian English: A preliminary study. *World Englishes*, 25(1), 91-104.
- Yeow, K. L. (1987). *Stress, rhythm and intonation in educated Singapore English: An auditory and instrumental study*. Unpublished M.A. thesis, National University of Singapore.
- Zuraidah Mohd. Don (1996). *Prosody in Malay discourse: An analysis of broadcast interviews*. Unpublished Ph.D. thesis, University of Malaya.

Thank you!