A syntactic universal in a contact language: The story of Singlish *already*

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This paper investigates the syntax and semantics of Singlish (Colloquial Singapore English) sentence-final *already* and its development in the contact ecology of Singapore. Bao 2005a identifies the Mandarin Chinese perfective suffix *-le* and sentence-final particle *le* as two substrate sources for Singlish *already*. In this paper, I first argue instead that sentence-final *le* — together with its cognate *liao/laa* in other Chinese languages of Singapore — is the sole substrate source for the syntax and semantics of Singlish *already*. The various interpretational effects of *already* can be derived from a uniform semantics shared with its substrate cognate particles *le/liao/laa*, together with consideration of the telicity of the predicate. I furthermore show that the syntax of *already* differs subtly from that of its substrate cognates: Singlish sentence-final *already* unambiguously scopes over the entire clause, whereas its substrate cognate particles *le/liau/laa* are in a clause-medial position. I propose that this difference can be explained through a process of reanalysis forced by the interaction of a syntactic universal, the Final-over-Final Constraint, together with independent differences between Singlish and its substrate Chinese languages.
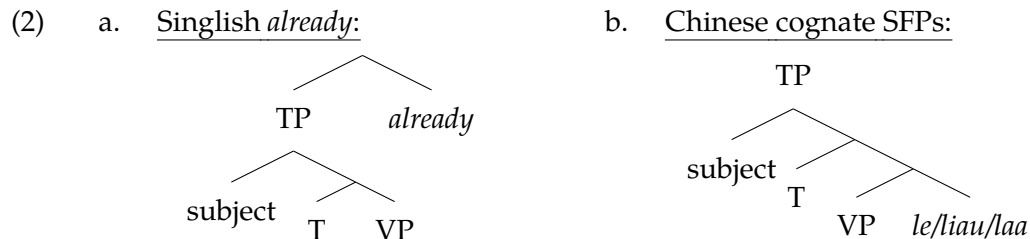
1 Introduction

The colloquial lingua franca of Singapore, Singlish, is a contact language born of British English together with other languages of colonial Singapore, including a number of Chinese languages and Malay.[1] Singlish has long been recognized as exhibiting various grammatical and lexical differences from "standard" Englishes. One such feature is the sentence-final use of *already* exemplified in (1). As has been noted previously, especially by Bao (1995, 2005a), the semantics of Singlish sentence-final *already* differs from the meaning of the standard English adverb *already*. This is reflected in the translation in (1).

(1)   The wall white **already**.   (Bao, 2005a: 239)
        'The wall turned white.'

This paper concerns the fine-grained syntax and semantics of Singlish sentence-final *already* and how this lexical item came to be. Bao 2005a has proposed that *already* is the result of a process of relexification (Muysken, 1981; Lefebvre, 1998), combining the syntax and semantics of the perfective verbal suffix *-le* and sentence-final particle (SFP) *le* from Mandarin Chinese with the English phonological form "already." I will adopt Bao's hypothesis that *already* is the result of a process of relexification, but will argue for a somewhat simpler history: The SFP *le* — or, more likely, its cognates *liau/laa* in southern Chinese languages — is the sole substrate source for *already*. Building on recent work on the semantics of Mandarin SFP *le* (in particular, Soh & Gao 2006, 2008 and Soh 2009), I propose a uniform semantics for *already* which derives its distinct interpretational effects from the telicity of event description it modifies.

This relexification story would lead us to expect the syntax of Singlish *already* to mirror the syntax of its cognate SFPs in substrate Chinese languages, both in linear and hierarchical position. Although Singlish *already* has indeed inherited the sentence-final linear position of its Chinese cognate SFPs *le/liau/laa*, evidence from semantic scope will show that they differ in their hierarchical position. Singlish *already* unambiguously attaches high, scoping over the entire clause, whereas its substrate cognate SFPs unambiguously attach to a clause-medial position:

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[1]In academic literature, Singlish is also often referred to as vernacular or colloquial Singapore English. These terms all refer to the basilectal variety spoken in Singapore, which coexists with Standard Singapore English. See e.g. Platt 1975 and Bao & Hong 2006. The Singlish judgments which I report on here reflect the grammar of speakers in their early to mid twenties while this project was conducted in 2016–2020.

(2) a. <u>Singlish *already*</u>:   b. <u>Chinese cognate SFPs:</u>

```
           ╱╲                              TP
          ╱  ╲                            ╱╲
        TP   already                     ╱  ╲
       ╱╲                          subject  ╲
      ╱  ╲                               ╱╲
   subject ╲                           T  ╱╲
         T  VP                           ╱  ╲
                                       VP   le/liau/laa
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What accounts for this difference in the hierarchical position of Singlish *already* vs its cognate Chinese SFPs? This problem comes into sharper focus when we consider the acquisition of these items. Singlish *already* and its cognate particles in Chinese languages are essentially identical in their linear position in the input that children are exposed to. Why do Singlish-acquiring children uniformly target a high structural position for *already*, despite the same semantics in Chinese languages being associated with a lower structural position?

I propose that the solution to this puzzle comes from the consideration of the Final-over-Final Constraint (FOFC), a proposed universal on structure-building and linearization (Holmberg 2000; Biberauer, Holmberg & Roberts 2008, 2014; Biberauer, Newton & Sheehan 2009; Sheehan, Biberauer, Roberts & Holmberg 2017; a.o.). As head-final heads in an otherwise head-initial clausal spine, the position of *already* and *le/liau/laa* will be severely constrained by FOFC. In particular, in Erlewine 2017, I proposed that such SFPs will be limited to the edges of Spell-Out Domains. In Chinese languages, which lack verbal inflection, the lower phase of the clause (approximately VP) can undergo Spell-Out, allowing for the low attachment of SFPs at this boundary, as in (2b). In contrast, Singlish exhibits verbal inflection, reflecting a morphological dependency between T and V. This dependency will suspend the independent Spell-Out of the lower phase (VP), forcing *already* to occupy a higher hieararchical position as in (2a).

I begin in section 2 with a brief introduction to the theory of relexification and its application to the development of Singlish. In section 3, I propose a uniform semantics for sentence-final *already* and argue for my revision to the Bao 2005a relexification theory for *already*. I then discuss the hierarchical position of *already* and its Chinese cognate SFPs in sections 4 and 5, establishing the contrast in (2). I then discuss the Final-over-Final Constraint and its effect on the development of Singlish *already* in section 6.

2 The grammar of Singlish and relexification

Scholars have debated the status of Singlish within the typology of contact languages, for example as an Outer Circle English variety with contact-induced grammatical changes, or as an English-based 'creoloid' (Platt, 1975). Regardless, it is widely recognized that the grammar of Singlish is distinct from that of so-called "standard" Englishes.

Consider for example the Singlish expression in (3). Although this sentence is made up of recognizable English lexical forms, its grammatical structure and interpretation take advantage of a number of grammatical features absent from many standard Englishes.

(3)   Cannot also must can.
      'Even if (you think/say) you cannot, you have to be able to.'

Immediately recognizable from this sentence is the fact that Singlish is a pro-drop language[2] (Tan, 2007; Sato, 2011) with bare conditionals (Bao, 2005b). Recognition of these features of Singlish helps us translate (3) into a standard English variety as *If you cannot, you also must be able to*, but this does not fully convey the correct semantics of (3). To fill this gap, we must additionally recognize that Singlish *also* with a leftward focus (here, focus on *cannot*) has a scalar, 'even'-like interpretation rather than an additive one (Quek & Hirsch, 2017). It also helps to know that *must* in Singlish has a predominantly deontic interpretation (Bao, 2010), perhaps due to competition with the novel epistemic necessity modal *confirm* (Kang, 2016).

The grammar of Singlish, then, differs from standard Englishes as a product of the complex contact situation in the history of colonial and modern Singapore.[3] The question now is how such grammatical features developed in the language. Here I will introduce one such theory — *relexification* as pioneered by work such as Muysken 1981 and Lefebvre 1998 — as it is invoked in the most sophisticated previous description of Singlish *already*, Bao 2005a.[4] Relexification has been proposed as a model for creole genesis whereby comparable lexical items from substrate and superstrate lexicons are recombined in order to produce the lexicon of the resulting contact
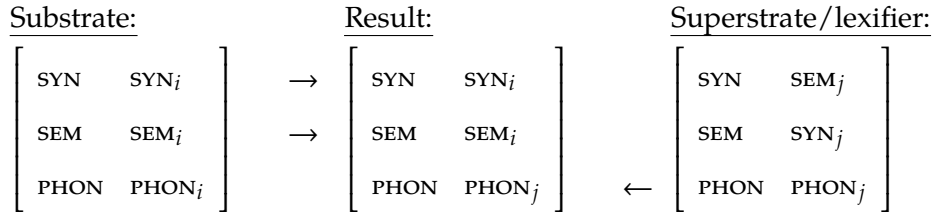
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[2]However, it generally resists matrix subject-drop. See Branan & New 2020.

[3]See e.g. Leimgruber 2013 for an overview.

[4]But see also DeGraff 2002 for criticisms of Lefebvre's original motivation for the relexification hypothesis from Haitian Creole.

language. More specifically, this process pairs the syntactic and semantic specifications of a lexical item in the substrate language with a corresponding phonological form from the superstrate language, as schematized in (4):

(4) **Relexification:** (based on Muysken, 1981: 61; Lefebvre, 1998: 16; a.o.)

Substrate: Result: Superstrate/lexifier:

$$
\begin{bmatrix} \text{SYN} & \text{SYN}_i \\ \text{SEM} & \text{SEM}_i \\ \text{PHON} & \text{PHON}_i \end{bmatrix} \rightarrow \begin{bmatrix} \text{SYN} & \text{SYN}_i \\ \text{SEM} & \text{SEM}_i \\ \text{PHON} & \text{PHON}_j \end{bmatrix} \leftarrow \begin{bmatrix} \text{SYN} & \text{SEM}_j \\ \text{SEM} & \text{SYN}_j \\ \text{PHON} & \text{PHON}_j \end{bmatrix}
$$

An independent and compelling example of the applicability of relexification theory to the grammar of Singlish is found in Lee, Ping & Nomoto's (2009) study of Singlish invariant *got*. Singlish has inherited the English lexical verb *get* with its past tense form *got*, but it also has a number of other uses of the form *got*, where it does not covary with *get*. Lee et al. describe these uses of Singlish invariant *got*s, some of which are illustrated below:

(5) **Some Singlish invariant *got*s:** (Lee, Ping & Nomoto, 2009: 301–303)

   a. That cat **got** so many kittens. possessive

      'That cat has so many kittens.'

   b. Here **got** many nice houses. existential

      'There are many nice houses here.'

   c. You **got** play tennis (before)? habitual

      'Do you play tennis?' / 'Did you used to play tennis?'

   d. Where **got**!? expression of surprise/incredulity; see also Koh 2018

Lee et al. observe that the range of *got*'s functions in (5) neatly parallels that of the existential/possessive verb *u* in Hokkien, a southern Chinese language which was one of the dominant languages of Singapore during the development of Singlish. Hokkien examples corresponding to the Singlish examples in (5) are reproduced in (6) below.

(6) **Some uses of Hokkien *u*:**   (*ibid.*: 301–303)

a. Hi   jiak ngeow **u** ani zway ngeow knia.   possessive

     that CLF cat   U INT many cat   DIM

     'That cat has so many kittens.'

b. Jit   dao   **u** jin zway swee e   cu.   existential

     this place U INT many nice   MOD house

     'There are many nice houses here.'

c. Li   (yee zeing) **u** pha bang giu bo?   habitual

     you before   U hit   tennis   NEG

     'Do you play tennis?' / 'Did you used to play tennis?'

d. Dolo/mana[6] **u**!?   expression of surprise/incredulity

     where   U

Lee et al. therefore propose that Singlish invariant *got* is the result of a process of relexification. As the expression of possession is a primary function of Hokkien *u*, the English lexical form *(has) got* was identified as an appropriate corresponding English form. Relexification produced new lexical items which pair the syntactic and semantic functions of *u* in (6) with the invariant English form *got*, resulting in the modern Singlish constructions observed in (5). Such examples motivate relexification as one of the processes involved in the development of modern Singlish grammar, in particular by pairing English superstrate forms with Chinese substrate syntax/semantics.

3   The semantics and development of Singlish sentence-final *already*

I now turn to the description of Singlish sentence-final *already*. Singlish descriptively has two homophonous lexical items with the surface form *already*: one is an adverb with the same 'earlier than expected' meaning as English *already* and the other is the sentence-final form which concerns us here. The existence of these two forms can be observed in the following contrast:

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[6]*Mana* is a borrowing from Malay, also meaning 'where.' See Lee et al. 2009 note 5.

(7) <u>Context 1</u>: Huimin was supposed to come here tomorrow.

    a. $\checkmark$She today **already** come.

    b. $\checkmark$She today come **already**.

(8) <u>Context 2</u>: Huimin was supposed to come here yesterday, but she didn't.

    a. #She today **already** come.

    b. $\checkmark$She today come **already**.

In the (a) examples, *already* is in a preverbal position and must be interpreted as the familiar standard English adverb *already*. Just as in English, then, the felicity of this *already* is sensitive to whether or not Huimin's arrival today counts as earlier than expected or not. In contrast, the sentence-final *already* in the (b) sentences is insensitive to this distinction and instead appears to express a different temporal relation. We are interested here in the semantics and development of this Singlish sentence-final *already*.

    The most extensive description of the uses and effects of Singlish sentence-final *already* is in Bao 2005a. Bao observes that the contribution of *already* systematically differs based on the aspectual class of the predicate. With a stative predicate such as *white* in (9), the addition of *already* signals a change of state. With an eventive predicate such as *wash my hand* in (10), the addition of *already* signals completion of the event.[7]

(9) The wall white **already**.   (Bao, 2005a: 239)

    'The wall turned white.' $\Rightarrow$ being white just started

(10) I wash my hand **already**.   (*ibid.*: 239)

    'I washed my hands.' $\Rightarrow$ washing hands just ended

    There are also cases where the contribution of *already* appears to be ambiguous, as in (11). Bao 2005a notes that these two interpretations of *already* in (11) correspond to the use of two different, homophonous morphemes *le* in Mandarin Chinese: the perfective verbal suffix *-le* in (12a) and the sentence-final particle *le* in (12b).

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[7]Example (10) can also be interpreted as 'I wash my hands now (habitually) but didn't used to.' This same ambiguity may be even more salient in the contrast between *I eat already*, which regularly means that the speaker has finished eating, versus *Baby eat already*, which can be taken to mean that the baby has recently begun eating solid foods. This ambiguity will be explained by the account below.

(11)   It rain **already**. (*ibid.*: 241)

    a. 'It rained / has rained.' ⟹ the raining has ended

    b. 'It has started / is about to rain.' ⟹ the raining has begun

(12) a. Xià-**le**   yǔ.   b. Xià   yǔ **le**. (*ibid.*: 242)

         down-PFV rain   down rain LE

         'It rained / has rained.'   'It has started / is about to rain.'

Bao therefore proposes that Singlish *already* is the result of a complex relexification pairing both Mandarin Chinese verbal *-le* and SFP *le* with the phonological form of the English adverb *already*. According to Bao, event completion readings as in (10) and (11a) reflect the perfective aspect semantics of Mandarin verbal *-le* (12a),[8] whereas the change of state and event start readings in (9) and (11b) correspond to Mandarin SFP *le* (12b).

An immediate complication for Bao's complex relexification account is that Singlish *already* never surfaces in an immediately postverbal position (see (13)), despite one of its substrate sources being the verbal suffix *-le*, which linearly intervenes between the verb and any postverbal arguments, as in (12a). Bao proposes that the results of relexification are adjusted so that they "conform to the (surface) structural requirements of the lexical-source language" (p. 258). In this case, because English adverbs never intervene between a verb and object, the resulting Singlish *already* also avoids this position, even in cases where — according to Bao — its semantics is due to relexification of verbal *-le*.

(13) *I wash **already** my hand.

I argue that this relexification hypothesis for the development of Singlish *already* can be simplified, with the Mandarin Chinese SFP *le* — or, more likely, its cognate particles in southern Chinese languages of Singapore, such as Hokkien *liau* and Cantonese *laa*[9] — being the sole substrate source for *already*. The key to this proposal is the observation that SFP *le* can itself also serve to ensure

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[8]Bao 1995 notes that this connection to Chinese perfective aspect markers is made earlier by Kwan-Terry (1989) in her description of the bilingual acquisition of English and Cantonese by a child in Singapore.

[9]The Chinese substrate influences on Singlish were most likely a range of southern Chinese languages, not Mandarin Chinese as the discussion in Bao 2005a seems to suggest. See e.g. Gupta 1994, Siegel 2012, Wong 2014, Lee et al. 2009 for discussion and support. Note also that the form *liao* is also used for SFP *le* in Singapore Mandarin.

completion of an event — i.e. the function of Singlish *already* that Bao attributes to the semantics of Mandarin verbal *-le* — if the event description is itself telic. It has been observed that "no predicate in [Mandarin Chinese] is inherently telic" (Sybesma, 1997: 227), but that telicity can be introduced by the explicit encoding of an end state, as in verb compounds. For example, the verb compound 'arrive-reach' in (14) together describes a telic accomplishment. The addition of the SFP *le* in this case enforces completion of the event at the reference time.

(14) Wǒmen dào-dá   shān-dǐng   **le**.

      we   arrive-reach mountain-top LE

      'We have reached the top of the mountain.'   (Soh & Gao, 2006: 107)

Here I propose to adopt the semantics for Mandarin SFP *le* developed in Soh & Gao 2006, 2008 and Soh 2009 and apply it for all uses of Singlish sentence-final *already*. The proposed semantics introduces a presupposition that the prejacent proposition did not hold at a prior time:

(15) *already*(*p*)**:**

    a. <u>asserts</u>: p is true at the reference time R

    b. <u>presupposes</u>: p is false before the reference time R

Let's see how this uniform semantics for *already* derives the meanings described above. First consider the stative predicate *white* in (9). With *already* taking the proposition p = 'that the wall is white' as its argument, the combination of the assertion of p and the presupposition that p was false before now entails that there was a change of state: the wall turned white.

(16) *already*(**state** *p*) **in (9):**

    p = the wall is white (state), R = now

    a. <u>asserts</u>: the state 'the wall is white' is true now

    b. <u>presupposes</u>: the state 'the wall is white' was false before now

        $\Rightarrow$ the wall just started being white, i.e. 'The wall turned white (just now).'

In contrast, suppose we take the predicate *wash my hands* in (10) to itself describe a telic accomplishment. The accomplishment p will be true at time t if its designated point has been reached by t. The use of *already* in (10) results in the expression of the recent completion of the event:

(17) *already***(accomplishment *p*) in (10):**

    p = I wash my hands (accomplishment), *R* = now

    a. <u>asserts:</u> the accomplishment 'I wash my hands' is true now

    b. <u>presupposes:</u> the accomplishment 'I wash my hands' was false before now

        ⇒ the end state of 'I wash my hands' was just met, i.e. 'I just finished washing my hands.'

As noted in footnote 7, example (10) also has an alternate interpretation as 'I wash my hands now (habitually) but didn't used to.' This is predicted by the application of *already* to a habitual interpretation of *I wash my hands*, which is stative:

(18) *already***(habitual state *p*) in (10):**

    p = I habitually wash my hands (state), *R* = now

    a. <u>asserts:</u> the state 'I habitually wash my hands' is true now

    b. <u>presupposes:</u> the state 'I habitually wash my hands' was false before now

        ⇒ the speaker habitually washes their hands now, but did not before.

Similarly, the predicate *rain* in (11) may be naturally interpreted as either an atelic state description or as a telic (perfective) description.[10] The application of *already* to these two interpretations of the underspecified *rain* in (18a,b) will result in an inchoative rain-starting reading (11a) or a completive rain-ending reading (11b), respectively.

As the above examples with *wash* and *rain* make clear, Singlish bare verbs may allow for both telic and atelic interpretations with no change in overt morphosyntax. This is in contrast to Mandarin

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    [10]As an anonymous reviewer notes, this approach predicts the availability of bare predicates such as *rain* with both *for-* and *in*-phrase temporal modifiers. Although bare predicates with an atelic interpretation are indeed compatible with *for*-phrases, I have been unable to produce clear examples of bare predicates with the predicted telic perfective interpretation with *in*-phrases. Bare predicates with *in*-phrases are possible in certain circumstances, but with inchoative achievement semantics instead:

(i)   A: Why sky so dark?

      B: Maybe will rain in one hour.

         'Maybe it will start to rain in an hour.'

Here I will leave open the puzzle of the apparent unavailability of *in*-phrases with telic perfective interpretations of bare verbs.

and other Chinese languages, for which it has been claimed that all verbs are inherently atelic; see e.g. Sybesma 1997, quoted above. But Singlish also has verb forms with English inflections such as *-ing* and *-ed*. Such forms serve to overtly specify the aspectual interpretation, leading to disambiguation of the effect of *already*. Compare the unambiguous (19) and (20) to the ambiguous *It rain already* (11) above.

(19)   **V-*ing* ⇒ atelic description ⇒ "inchoative *already*"**
       Outside raining already.[11]
       a.   *'It rained / has rained outside.'
       b.   'It has started / is about to rain outside.'

(20)   **V-*ed* ⇒ telic (perfective) description ⇒ "completive *already*"**
       It rained already.
       a.   'It rained / has rained.'
       b.   *'It has started / is about to rain.'

Our predictions of the correct unambiguous interpretations for *already* in (19–20) and its multiple interpretations in (11) with bare *rain* serves as an argument for the proposal here, where *already* has the uniform semantics in (15), in turn based on Soh & Gao's proposal for the Mandarin SFP *le*. The prediction of this interaction with bare vs inflected verb forms must be stipulated under the approach of Bao 2005a.

Having established that Singlish sentence-final *already* may have a uniform semantics as in (15) for all of its uses, we are now in a position to reconsider its development. Recall that Bao 2005a proposes that *already* is the result of relexification based on two substrate morphemes: the Mandarin verbal suffix *-le* and SFP *le*. I argue instead that Mandarin SFP *le* — and/or its cognate particles in southern Chinese languages, *liau* and *laa* (see footnote 9) — is the single substrate source for for the process of relexification which led to Singlish sentence-final *already*. As schematized in (21), relexification predicts a new lexical item in the Singlish lexicon which pairs the semantics of Chinese SFP *le/liau/laa* in (15) with the phonological form of the English adverb *already*.

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[11]The speakers I consulted judge *It raining already* to sound unnatural, although *Outside raining already* or even *Raining already* with no subject are acceptable with the inchoative reading.

(21) **The relexification of Singlish sentence-final *already*, modified from Bao 2005a:**

	Substrate languages:		Result:		Superstrate/lexifier:
	Hokkien, Cantonese, ...		Singlish		English

$$
\begin{bmatrix}
\text{SYN} & \text{SFP} \\
\text{SEM} & (15) \\
\text{PHON} & \textit{le/liau/laa}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{SYN} & \text{SFP} \\
\text{SEM} & (15) \\
\text{PHON} & \textit{already}
\end{bmatrix}
\leftarrow
\begin{bmatrix}
\text{SYN} & \text{adverb} \\
\text{SEM} & \approx \text{earlier...} \\
\text{PHON} & \textit{already}
\end{bmatrix}
$$

Based on the theory of relexification developed by Muysken, Lefebvre, Lumsden and colleagues, the relexification process as in (21) also predicts the resulting lexical item in Singlish to inherit the syntactic specification of its source Chinese substrate SFPs. On the level of surface word order, this prediction is correct: like its substrate cognate particles, Singlish *already* is necessarily sentence-final, as observed in the contrasts in (7–8). In particular, it is ungrammatical between a verb and object (13), which complicated the relexification account of Bao 2005a that takes the verbal suffix *-le* to also be a substrate sources for *already*. My proposal, which identifies the Chinese SFPs *le/liao/laa* to be the sole substrate source for *already*, immediately predicts this strict sentence-final position.

We now have a concrete analysis for the semantics of Singlish *already* and how it came to be paired with its phonological form and linear position, based on the process of relexification schematized in (21) above. But the syntactic specification of a lexical item is not simply its linear position. A further question is that of the *hierarchical* position of Singlish sentence-final *already*. The remainder of this paper will be predominantly interested in this question. In the next section, I first consider the hierarchical position of the Chinese substrate cognate SFPs *le/liao/laa*, and then I turn to the hierarchical position of Singlish *already* itself in section 5.

4 The syntax of Chinese *le/liau/laa*

The syntax of Chinese SFPs, especially Mandarin Chinese *le*, has been the subject of significant previous research. We concentrate on two major questions in this section: the syntactic category of these SFPs and their hierarchical position.

SFPs in Chinese languages are a closed class of grammaticalized "particles" defined by their strict sentence-final position. Common functions for SFPs are clause typing (e.g. in Mandarin,

polar question *ma*, imperative *ba*), the expression of speaker attitude, or temporal marking. Here I will adopt the common view that these particles are head-final heads in the clausal spine. Given that Chinese clause structure is otherwise rigidly head-initial, Chinese SFPs have recently received broader theoretical interest as potential exceptions to the Final-over-Final Constraint, a proposed syntactic universal, which will be the topic of section 6. For previous work on Chinese SFPs, see especially Lee 1986, Cheng 1991, Paul 2014, and Erlewine 2017 on Mandarin and Tang 1998, Law 2002, and Sybesma & Li 2007 on Cantonese.

A challenge for the study of Chinese SFPs by linguists — as well as their acquisition by children — is that their linear position is under-informative as to their syntactic position. For example, *le/liau/laa* could be attached to the entire clause (e.g. TP) or to a lower, clause-medial position (adjoined to VP or an extended projection of VP):

(22)   **Two hypotheses for the position of Chinese SFPs *le/liau/laa*:**

a.

b.
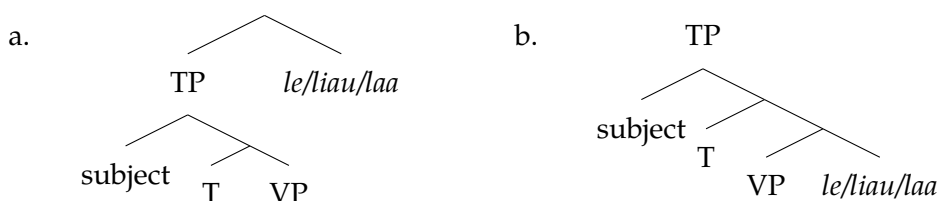
As many Chinese SFPs encode clause type or speaker attitude, many scholars have assumed that all SFPs necessarily occupy a high position in the clause, as in (22a).

In Erlewine 2017, I investigated this question through evidence from the semantic scope of SFPs. In particular, I argued that the previously identified "low" class of SFPs in Mandarin Chinese — including sentence-final *le* as well as the sentence-final 'only' *éryǐ* — unambiguously occupy a clause-medial position between TP and VP, as roughly illustrated in (22b).

Here I will reproduce one of the arguments presented in Erlewine 2017 for the clause-medial position of Mandarin SFP *le*. Consider the contrast in (23) reproduced from Soh & Gao 2006. These two sentences differ only in the choice of negator: the low negator *bù* and the higher *bú-shì*, which incorporates a copular verb. (23a) expresses that the speaker no longer misses home, whereas (23b) expresses that the speaker didn't miss home before and still does not miss home. Note that the two sentences are identical in the relative linear order of negation and *le*.

(23) **The scope of Mandarin *le* vs two negators, based on Soh & Gao, 2006: 119:**

a. <u>*"bù...le"* ⟹ LE > NEG:</u>

    Wǒ **bù** xiǎng jiā **le**.

    I   NEG miss home LE

    'I don't miss home anymore.'
    <u>asserts</u>: 'I do not miss home now.'
    <u>presupposes</u>: 'I did miss home before.'

b. <u>*"búshì...le"* ⟹ NEG > LE:</u>

    Wǒ **bú-shì** xiǎng jiā **le**.

    I   NEG-COP miss home LE

    'I still don't miss home.'
    <u>asserts</u>: 'I do not miss home now.'
    <u>presupposes</u>: 'I did not miss home before.'

Soh & Gao argue that this difference can be explained as a scope ambiguity. In (23a), *le* takes scope over the low negator *bù*, applying the semantics in (15) to the proposition 'I don't miss home.' This results in the presupposition that 'I don't miss home' was false before, i.e. that the speaker did miss home before. In contrast, in (23b), *le* takes scope under the high negator *búshì*. The application of *le* to 'I miss home' yields the assertion 'I miss home' together with the presupposition that 'I miss home' was false before. The higher negation then negates the assertion but not the presupposition, resulting in the semantics described in (23b), which asserts that the speaker does not miss home and presupposes that they did not miss home before either.

I refer the interested reader to Erlewine 2017 for additional discussion of this argument. Erlewine 2017 also presents additional arguments for the clause-medial height of Mandarin SFP *le* as well as another low SFP in Mandarin Chinese, the sentence-final 'only' *éryǐ*.

But recall that Mandarin was most likely not a dominant substrate influence in the development of Singlish; see footnote 9. It is therefore important to also check the structural height of cognates to Mandarin *le* in other Chinese languages of Singapore — specifically, *liau* in Southern Min languages (e.g. Hokkien, Teochew, Hainanese) and *laa* in Cantonese. Examples (24) and (25) below are modeled on (23) above and reproduce the core finding above for Hokkien and Cantonese. The cognate SFPs *liau/laa* pattern with Mandarin Chinese sentence-final *le* in attaching unambiguously to a clause-medial position, taking scope between the higher and lower negators.[12]

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[12]A reviewer asks about the precise positions of these higher and lower negators in Chinese languages. As discussed in Erlewine 2017 (see especially note 5), what we know for certain is (a) that both the higher and lower negations are monoclausal constructions and (b) that the low class of SFPs including Mandarin *le* and *éryǐ* occupy a fixed, clause-medial position between them, as also reflected here. In Erlewine 2017, I conclude that the lower negators must be within the lower phase of the clause (traditionally, *v*P) and the higher negators must be outside of the lower phase. See

(24) **The scope of *liau* in Hokkien (Southern Min) vs two negators:**[13]

a. <u>*"bô...liáu"* $\Rightarrow$ LIAU > NEG:</u> b. <u>*"m̄sī...liáu"* $\Rightarrow$ NEG > LIAU:</u>

<div>

I   **bô** suka li **liáu**.   I   **m̄-sī**   suka li **liáu**.

s/he NEG like   you LIAU   s/he NEG-COP like   you LIAU

'S/he doesn't like you anymore.'   'S/he still doesn't like you.'

asserts: 'S/he doesn't like you now.'   asserts: 'S/he doesn't like you now.'

presupposes: 'S/he liked you before.'   presupposes: 'S/he didn't like you before.'

</div>

(25) **The scope of *laa* in Cantonese vs two negators:**[14]

a. <u>*"m...laa"* $\Rightarrow$ LAA > NEG:</u> b. <u>*"mhai...laa"* $\Rightarrow$ NEG > LAA:</u>

<div>

Keoi^2 **m^4** zung^{1}ji^3 nei^5 **laa^3**   Keoi^2 **m^4-hai^6** sik^6-zo^2 faan^6 **laa^3**.

s/he NEG like   you LAA   I   NEG-COP eat-ASP rice   LAA

'S/he doesn't like you anymore.'   'S/he hasn't already eaten rice.'

asserts: 'S/he doesn't like you now.'   asserts: 'S/he hasn't eaten rice now.'

presup.: 'S/he did like you before.'   presupposes: 'S/he hadn't eaten rice before.'

</div>

A reviewer poses a question regarding the scope of subject quantifiers. The discussion here predicts that subject quantifiers would uniformly take scope above *le/liao/laa*, but as the reviewer notes, negative subject quantifiers appear to take scope under *le/liao/laa*. I illustrate this point with (26) below in Mandarin, based on the reviewer's example.

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discussion in section 6 below for the relevance of this phase boundary. A more precise identification of their positions is not necessary for our purposes here.

[13]I thank Ting-Chun Chen for the transcription of Hokkien data.

[14]Superscripts indicate tones. The examples in (25) are not parallel, due to a difficulty with identifying appropriate predicates which can co-occur with the different negators and *laa^3*. Jess Law and Leslie Lee also note that there appear to be other examples where *laa* scopes over the higher negator *mhai*. Further work on Cantonese SFP *laa* and its interaction with these negators and predicates of different aspectual classes is warranted. I thank Elaine Lau, Jess Law, Leslie Lee, and Joanna Sio for discussion of this and related Cantonese data.

(26)   **Negative subject quantifier appears to scope under *le*:**[15]   LE > *no one*

   Méi-yǒu rén   yòng zhè zhǒng xǐyījī   **le**.
   NEG-have person use   this type   washing machine LE

   asserts: "No one uses this kind of washing machine now.'
   presupposes: "Someone used this kind of washing machine in the recent past."

The attested interpretation of example (26) involves the negative quantifier scoping under *le*: it asserts that no one uses this kind of washing machine now (p), and presupposes that p was false at a prior time, together expressing a change of state — *some* used this kind of washing machine previously but now *no one* does.[16] However, such data does not challenge our conclusion regarding the height of *le/liao/laa* when we consider the nature of such negative quantifiers in Chinese languages. Apparent negative quantifiers such as Mandarin *méi-yǒu rén* in (26) are limited to subject position[17] and have been analyzed by many authors as a biclausal presentational structure, with the negative morpheme — *méi-yǒu* in the Mandarin (26) above — being the negative existential/possessive verb 'not have'; see e.g. Huang 1987, Fang & Lin 2008. The sentence-final *le* in examples such as (26) may then occupy a clause-medial position in the *matrix* clause, just above the verb *méi-yǒu*. Given this analysis, such examples do not counterexemplify the analysis here, following Erlewine 2017, that the Chinese SFPs *le/liao/laa* uniformly realize a fixed, clause-medial position between TP and VP, as in (22b).

   Recall that Chinese SFPs have traditionally been analyzed as head-final heads in an otherwise head-initial clausal spine. The existence of head-final projections of this form in a clause-medial position has important implications for the Final-over-Final Constraint, as I will discuss in section 6 below. This understanding of the syntax of these Chinese SFPs *le/liau/laa* will be an important point of comparison for our investigation into Singlish sentence-final *already*, to which we return next. As discussed in section 3, these Chinese SFPs are the substrate sources in the relexification

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[15]I thank Zheng Shen for discussion of this Mandarin example.

[16]See discussion around (30) below on what the hypothetical *no one* > LE scope interpretation would be.

[17]See e.g. Huang 2003, also especially for discussion of apparent counterexamples in Taiwanese Southern Min, which is closely related to Hokkien.

process which led to Singlish sentence-final *already*. From a straightforward application of the relexification analysis as schematized in (21) above, we predict Singlish sentence-final *already* to have inherited the syntactic specification of its substrate sources *le/liau/laa*, not only in its linear position, but specifically as a head-final head in a low, clause-medial position.

5   The syntax of Singlish *already*

We now return to the description of Singlish sentence-final *already*. As described above in section 3, Singlish *already* has the semantics of Chinese *le/liau/laa* and linearly occupies the same sentence-final position. The question now is what hierarchical position it takes: Does *already* exhibit the clause-medial attachment exhibited by its substrate cognates?

In stark contrast to the uniform behavior of *le/liau/laa* observed above, Cheong 2016 argues that Singlish sentence-final *already* unambigously scopes over the entire clause. Her evidence also comes from semantic scope, modeled in part on the tests I presented in Erlewine 2017, and shows that *already* unambiguously scopes over the entire clause.

First, consider the scope of sentence-final *already* with respect to negation. Example (27) expresses a change of state: the habitual 'I wash my hands' was true before but no longer true now. This meaning can be modeled using the semantics for *already* in (15) with *already* taking scope over negation.

(27)   I **don't** wash hand **already**.   (Cheong, 2016: 18)

     'I don't wash my hands anymore.'   ALREADY > NEG

     <u>asserts:</u> 'I do not wash my hands now.'

     <u>presupposes:</u> 'I used to wash my hands before.'

If negation took scope over *already* in (27), *already* would introduce the presupposition that 'I wash my hands' was false before, and this presupposition would then project through the higher negation. The resulting meaning — that 'I wash my hands' was false before and also false now — is not possible in (27) but is possible with a biclausal negation:[18,19]

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[18]Unlike the Chinese languages above, Singlish appears to lack distinct, higher and lower monoclausal negations.

[19]As noted above, the predicate *wash hand* is ambiguous between a habitual activity reading and an accomplishment reading. The dominant reading here seems to be episodic, reporting the lack of the *wash hand* accomplishment in the

(28) Is **not** that I wash hand **already**. (*ibid.*: 18)

    'I still haven't washed my hands.' NEG > ALREADY

    asserts: 'I have not washed my hands now.'

    presupposes: 'I had not washed my hands before.'

Consider also the scope of *already* with respect to subject quantifiers. Example (29) asserts that no one goes to school now, but that was false before; i.e. at least one person used to go to school in the past. This too is captured by our semantics for *already* in (15) if *already* takes scope over *no one*.

(29) **No one** go school **already**. (*ibid.*: 18)

    'It is now the case that no one goes to school.' ALREADY > *no one*

    asserts: 'No one goes to school now.'

    presupposes: 'Someone used to go to school before.'

Note also that, unlike with the Chinese negative subjects as in (26) above, there is no reason to suspect that this Singlish structure in (29) is biclausal. Its interpretation transparently shows us that *already* must attach above the subject position.

Suppose instead that *already* attached to a clause-medial, VP-peripheral position. Assuming a VP-internal base position for the subject *no one*, represented by the variable x in (30), *already* (15) would take the proposition 'x goes to school' in its scope and introduce the presupposition that 'x did not go to school before.'

(30) **Hypothetical LF for (30) with *no one* > *already*:**

    [$_{TP}$ [no one] λx [[$_{VP}$ x go school] *already*]]

    already $\rightsquigarrow$ 'x did not go to school before'

There is a question now of how this variable x is interpreted in the content of the presupposition of *already* — the so-called "projection problem" for presuppositions (Heim, 1983). Previous work has established that presuppositions under negative quantifiers such as *no one* project over their entire domain of quantification. For example, Chemla 2009 reports experimental results which show that the factive presupposition of *know* in (31) must hold for all students.

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current situation. This can be thought of as negation applying to (17), i.e. the accomplishment reading of *wash hand* with *already* applied to it. This is in contrast to example (27), where the dominant reading is habitual, modeled as in (18) but with negation applying before *already*. I thank Keely New for discussion of this point.

(31)   No student$_i$ knows that he$_i$'s lucky.

       <u>presupposes</u>: 'Every student is lucky.'

If *no one* took scope over *already* as in (29), we would then predict (29) to express a stronger presupposition that everyone went to school before, but this is not the interpretation of (29). We can conclude with Cheong 2016 that *already* unambiguously scopes over subjects.

   In conclusion, Singlish sentence-final *already* unambiguously takes scope over the entire sentence, even scoping over subject quantifiers as in (29). This leaves us with a puzzle. As discussed above, we hypothesize that the SFPs *le/liau/laa* in Chinese languages of Singapore were the substrate sources for Singlish sentence-final *already*, and these SFPs attach to a clause-medial position between VP and TP. The position of Singlish sentence-final *already* thus differs drastically from that of its substrate cognate SFPs, despite appearing in the same sentence-final linear position.

(32)   **Positions for *already* and substrate cognates, determined by semantic scope:** (=2)
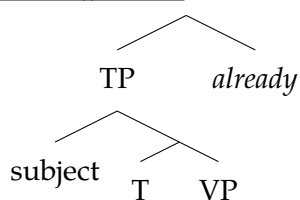
   a.   <u>Singlish *already*</u>:   b.   <u>Chinese cognate SFPs</u>:
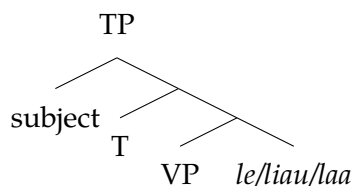
Again, I note that this contrast in structural position is not only a puzzle for the historical development of Singlish, but is also a puzzle for the synchronic acquisition of these languages. With the same semantics as in (15), learners of Chinese languages robustly converge on a clause-medial structural position for *le/liau/laa*, whereas learners of Singlish robustly converge on a high, clause-peripheral position for sentence-final *already*. The contrast reported above between the structural positions of *already* and Chinese *le/liau/laa* is even true of the individual grammars of Singlish-Mandarin bilingual speakers that I have consulted.

   As one first possibility for explaining this puzzle, I will briefly discuss the syntactic category of Singlish sentence-final *already*. Recall that *already* in "standard" Englishes is an adverb, whereas the relevant Chinese substrate particles have been analyzed in previous work as head-final heads in the clausal spine. Perhaps the difference in (32) can be explained if Singlish *already* is synchronically an adverb rather than a head-final head. This hypothesis is schematized in (33):

(33)   **Relexification of Singlish sentence-final *already* as an adverb (to be rejected):**

Substrate languages: Result: Superstrate/lexifier:

Hokkien, Cantonese, ...   Singlish   English

$$
\begin{bmatrix}
\text{SYN} & \text{head-final head,} \\
 & \text{below TP} \\
\text{SEM} & (15) \\
\text{PHON} & \textit{le/liau/laa}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{SYN} & \textbf{adverb} \\
 & \\
\text{SEM} & (15) \\
\text{PHON} & \textit{already}
\end{bmatrix}
\begin{matrix} \leftarrow \\ \\ \\ \leftarrow \end{matrix}
\begin{bmatrix}
\text{SYN} & \text{adverb} \\
 & \\
\text{SEM} & \approx \text{earlier...} \\
\text{PHON} & \textit{already}
\end{bmatrix}
$$

This mode of explanation faces multiple challenges. First, if the relevant Singlish *already* were an adverb, we might expect it to not be limited to sentence-final position. In fact, Singlish *does* have an adverb *already* which exhibits freer word order but instead has the 'earlier than expected' semantics of standard English *already*, as we saw in examples (7–8) above. The contrasts in (7–8) support the idea that the Singlish *already* which we are studying here cannot simply be specified as an adverb as in (33).

Suppose then that we let *already* be an adverb but (somehow) independently restrict its appearance to a sentence-final surface position. Could this help explain the unambiguously high position of sentence-final *already* (32b)? For this mode of explanation to go through, it would have to be the case that Singlish independently interprets adverbs in sentence-final position as unambiguously structurally high, taking scope over the whole clause. A preliminary look at other Singlish adverbs in sentence-final position shows that this approach is also untenable.

Here too I draw on observations reported in Cheong 2016, regarding the scope of sentence-final *only* in Singlish. The frequent appearance of *only* in sentence-final position is a notable feature of Singlish and Hong Kong English (Hiramoto, 2012), also found in Indian English (Parviainen, 2012). Consider the scope of sentence-final *only* with respect to the negation *don't* in (34). Sentence-final *only* can take scope over or under negation, in contrast to the strictly wide scope of sentence-final *already* in (27).

(34) Context: The relevant languages under discussion are French, Spanish, and Japanese.

John **don't** speak [French]$_F$ **only**. (Cheong, 2016: 33)

   a. 'John does not only speak French.' NEG > ONLY

      ⇒ He speaks French and speaks another language as well.

   b. 'John only does not speak French.' ONLY > NEG

      ⇒ He does not speak French, but speaks both French and Spanish.

A similar ambiguity is observed with the scope of *only* with respect to the subject quantifier *no student*. This too contrasts with the behavior of sentence-final *already* in (29).

(35) **No student** study [Spanish]$_F$ **only**. (*ibid.*: 29)

   a. 'There is no student who studies only Spanish.' *no student* > ONLY

      ⇒ Every student studies Spanish and another language.

   b. 'It is only the case that no student studies Spanish.' ONLY > *no student*

      ⇒ No student studies Spanish, but there are students that study French and Japanese.

This behavior of *only* in sentence-final position in Singlish shows that it is not the case that adverbs in sentence-final position necessarily take wide scope, as would be required to explain the strict wide scope of sentence-final *already* as an adverb. The difference between *already* and *only* in Singlish is also apparent in their surface distribution. In contrast to the *already* described here which is limited to sentence-final position (7–8), *only* can occur in Singlish in preverbal position as well, with no difference in meaning. In other words, *only* in Singlish has the expected, relatively free distribution (both in linear position and structural height) of an English adverb — with the sole difference being that *only* is much more common in sentence-final position in Singlish (and Hong Kong English and Indian English) than in standard British and North American Englishes (Hiramoto, 2012; Parviainen, 2012).

This comparison with the adverb *only* in Singlish thus motivates a description of Singlish sentence-final *already* as instantiating a distinct syntactic category. I propose that Singlish sentence-final *already* is a head-final head in the clausal spine, with a fixed hierarchical position. My proposed lexical specification for Singlish sentence-final *already* is given in (36).

(36) **The development of Singlish sentence-final *already* (final, to be explained):**

<table>
<tr><td>Substrate languages:</td><td></td><td>Result:</td><td></td><td>Superstrate/lexifier:</td></tr>
<tr><td>Hokkien, Cantonese, ...</td><td></td><td>Singlish</td><td></td><td>English</td></tr>
</table>

$$\begin{bmatrix} \text{SYN} & \text{head-final head,} \\ & \text{below TP} \\ \text{SEM} & (15) \\ \text{PHON} & \textit{le/liau/laa} \end{bmatrix} \rightarrow \begin{bmatrix} \text{SYN} & \textbf{head-final head,} \\ & \textbf{\textit{above TP}} \\ \text{SEM} & (15) \\ \text{PHON} & \textit{already} \end{bmatrix} \leftarrow \begin{bmatrix} \text{SYN} & \text{adverb} \\ \\ \text{SEM} & \approx \text{earlier...} \\ \text{PHON} & \textit{already} \end{bmatrix}$$

From the point of view of the relexification hypothesis for the development of *already* (section 3), *already* being a head-final head would be the expected result, as it matches the syntactic description of its Chinese substrate cognate SFPs as head-final heads rather than adverbs.[20] The one difference, however, is its hierarchical position: Singlish sentence-final *already* unambiguously attaches above TP, whereas its substrate cognate SFPs occupy a fixed clause-medial position below TP.

What led to this fixed, high hierarchical position for Singlish *already*? It cannot be attributed to the relevant substrate and superstrate lexical specifications, also in (36). And as noted above, there are no observable differences in linear position which would have led to such a change. This innovation in the lexical specification of Singlish *already* must be due to an independent pressure in the grammar of Singlish.

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[20]Hiramoto 2012 proposes that both sentence-final *only* and *already* are the result of transfer from cognate SFPs in Chinese substrate languages. Indeed, just as the relevant Chinese languages have cognate SFPs for Singlish sentence-final *already*, as presented above in section 4, they also have SFPs with the semantics of *only*. See example (10′) in Hiramoto 2012: 644. In Erlewine 2017, I show that the Mandarin sentence-final 'only' *éryǐ* unambiguously takes clause-medial scope, at a height equal to that of Mandarin SFP *le*, also observed above. The striking difference in the synchronic syntactic behaviors of Singlish sentence-final *only* and *already* may suggest that they did not in fact develop in the same manner, contrary to Hiramoto's suggestion.

One possibility is that multiple influences may have led to the development of Singlish sentence-final *only*, rather than being a simple relexification of Chinese 'only' SFPs. Parviainen 2012 shows that frequent sentence-final use of *only* is also observed in Indian English (without Chinese substrate influence) and hypothesizes that this feature of Indian English may have also been an influence in the development of Singlish. In contrast, Indian English lacks the frequent sentence-final *already* described here (Hanna Parviainen, p.c.), making its use in Singlish (and Hong Kong English) more directly attributable to Chinese substrate influence.

These synchronic and historical differences between Singlish sentence-final *already* and sentence-final *only* (and *also*) warrant further investigation, which I will leave for future work.

22

6 Reanalysis due to a syntactic universal

As we have seen above, the fine-grained syntactic behavior of Singlish sentence-final *already* shows that it is not the straightforward result of a process of relexification, but instead reflects an additional change. I propose that *already* underwent *reanalysis* triggered by independent pressure in the grammar of Singlish — but not in substrate Chinese languages — to avoid the placement of head-final heads in a clause-medial position. *Already* thus changed from a head-final head in the VP periphery, like its Chinese cognate SFPs, to a head-final head in the CP periphery.[21] I furthermore identify the relevant constraint which triggered this reanalysis as the *Final-over-Final Constraint* (Holmberg 2000; Biberauer et al. 2008, 2009, 2014; Sheehan et al. 2017; a.o.), a proposed universal on structure-building and linearization.

The Final-over-Final Constraint (FOFC) is a constraint on the shape of syntactic structures, stated in (37). Informally, FOFC allows for three types of local syntactic configurations, schematized in (38): strictly head-initial (HI) (a), strictly head-final (b), and structures with a head-initial projection dominating head-final projection (c). Structures with a head-final projection dominating a head-initial projection (d) are claimed not to exist.

(37) **The Final-over-Final Constraint (FOFC) (Holmberg, 2000: 124):**

If a phrase α is head-initial, then the phrase β immediately dominating α is head-initial. If α is head-final, β can be head-final or head-initial.

(38) **Predictions of the Final-over-Final Constraint:**

a. $^{\checkmark}$ HF over HF: b. $^{\checkmark}$ HI over HI: c. $^{\checkmark}$ HI over HF: d. * HF over HI:
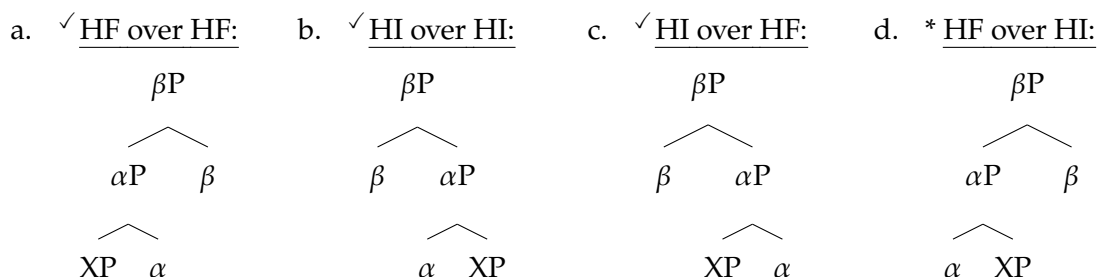
FOFC was first formulated to describe certain curious gaps in Finnish word order patterns. Consider the order of the auxiliary, verb, and object in the Finnish *wh*-questions in (39). Suppose

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[21]I do not make a claim as to whether these two processes — relexification and reanalysis — took place over time or in one step.

the auxiliary occupies a head immediately selecting the verb phrase: α = V and β = Aux.[22] The verb may take its complement object to its left or right, and the auxiliary can precede or follow the VP, with one exception: the V-O-Aux order (d), which would require a head-final Aux taking a head-initial VP as its complement. Biberauer et al. (2008, 2014) show that this *V-O-Aux gap is also observed across a range of modern and historical Germanic languages.

(39) **Word orders in Finnish *wh*-questions (Holmberg, 2000: 128):**

    a. <u>Aux-V-O:</u>

        ✓Milloin Jussi olisi   kirjoittanut romaanin?

        when   Jussi would.have written   a novel

        'When would Jussi have written a novel?'

    b. <u>Aux-O-V:</u>

        ✓Milloin Jussi olisi   romaanin kirjoittanut?

        when   Jussi would.have a novel   written

    c. <u>O-V-Aux:</u>

        ✓Milloin Jussi romaanin kirjoittanut olisi?

        when   Jussi a novel   written   would.have

    d. <u>V-O-Aux:</u>

        *Milloin Jussi kirjoittanut romaanin olisi?

        when   Jussi written   a novel   would.have

Subsequent work by Biberauer, Holmberg, Roberts, Sheehan, and colleagues has shown that this constraint (37) accurately explains word order gaps for various types of syntactic structures in a wide range of languages, motivating FOFC as a syntactic universal.

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[22]This assumption simplifies the illustration, but is not strictly necessary to explain the pattern in (39). FOFC bans a head-final projection above a head-initial one at any level, so once the VP is head-initial, FOFC predicts that all higher projections will necessarily be head-initial — so long as the verb and auxiliary are both in the same "FOFC domain." See discussion of exceptions to the *V-O-Aux constraint and FOFC domains below.

At the same time, FOFC cannot hold over entire utterances. Consider the German example in (40). The German VP is head-final but dominates a head-initial DP.

(40)   **Head-final VP over head-initial DP in German:**   (Biberauer et al., 2008: 99)

Johann hat [$_{VP}$ [$_{DP}$ den Mann] gesehen].
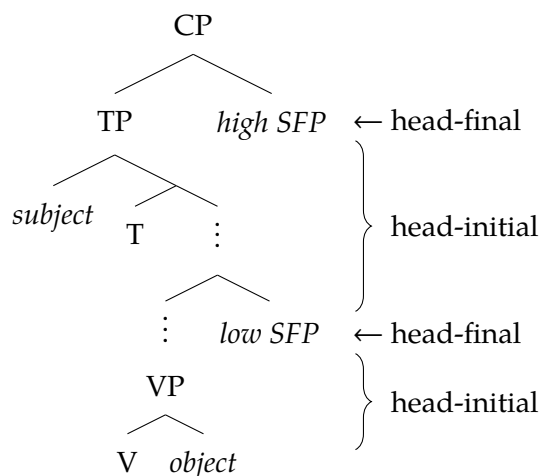John   has   the man   seen

'John has seen the man.'

A common intuition for accounting for such data is that FOFC holds only over certain spans of syntactic structure, rather than the entire utterance. I refer to such domains of FOFC enforcement as *FOFC domains*. Biberauer et al. (2009, 2014) and Biberauer & Sheehan (2012) propose that FOFC domains are extended projections (Grimshaw, 2000). FOFC is not enforced between the DP and VP projections in (40) because the DP and VP are not in the same extended projections. In contrast, the absence of V-O-Aux order in Finnish and Germanic above is due to FOFC being enforced across the entire clausal spine — the extended projection of V, which includes the heads V, T, C and others, depending on the inventory of functional heads assumed in the clausal spine.

As Chinese SFPs have been analyzed as head-final heads in the clausal spine, they have received attention as potential exceptions to FOFC (Biberauer et al., 2008, 2009; Bailey, 2010; Chan, 2013; Paul, 2014; a.o.). Much of this literature has focused on high SFPs with clause-typing or speaker attitude functions, which can reasonably be assumed be in the extended CP periphery (see especially Paul, 2014). In this case, a relatively straightforward resolution can be found by making reference to the notion of FOFC domains. FOFC is enforced only over extended projections, according to Biberauer et al., and the clause edge is a natural break point in extended projections. Suppose an SFP is a head-final head which takes the full verbal extended projection as its complement. This situation would not violate FOFC as the head-final SFP and the head-initial heads in the verbal extended projection would be in different FOFC domains, and thus not be evaluated together for FOFC compliance.

However, the existence of so-called "low" Chinese SFPs in a clause-medial position — as I've argued for Mandarin *le* and 'only' *éryǐ* in Erlewine 2017, and we saw for Hokkien *liau* and Cantonese *laa* in section 4 — is more challenging to reconcile with FOFC. This structural configuration is sketched in (41).

(41) **Chinese SFPs in two positions (Erlewine, 2017: 39):**

```
                    CP
                   /  \
                  /    \
                TP    high SFP   ← head-final
               / \           ⎫
         subject  T    ⋮     ⎬  head-initial
                  / \        ⎭
                 ⋮   low SFP   ← head-final
                VP         ⎫
               /  \        ⎬  head-initial
              V   object   ⎭
```

If the entire verbal extended projection is a single FOFC domain, as Biberauer et al. 2008 suggest, we predict that no head-final head could appear in the middle of this clausal spine, given the clearly head-initial lower verbal projections. FOFC (37) claims that no head-initial projection can be dominated by a head-final projection. This suggests that we should abandon the analysis of low SFPs as head-final heads or abandon FOFC itself.

In order to resolve this tension, in Erlewine 2017 I argued for a new characterization of FOFC domains which allows for principled cross-linguistic variation in the size of FOFC domains:
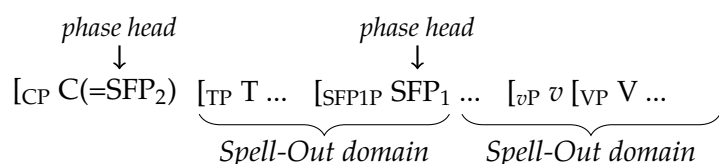
(42) **FOFC domains = Spell-Out domains (Erlewine, 2017: 67):**

FOFC holds only within individual Spell-Out domains.

Phase theory (Chomsky, 2000, 2001) posits that syntactic structure is built in chunks, phase-by-phase, with CP, *v*P, and DP being classical examples of phases. Once one full phase is built, the complement of the head of the phase may undergo *Spell-Out*. The determination of word order and surface morphophonological forms then takes place during Spell-Out. Under this view of cyclic structure building, it is natural to conceive of FOFC — a constraint on the linearization of syntactic structures — as operating over structures which undergo Spell-Out together, but not across larger structures.

In Mandarin Chinese, I proposed that the lower phase head — which I label "SFP$_1$" and take to be the locus of the low SFPs such as Mandarin *le* — and the higher phase head C each trigger Spell-Out of their complements, as illustrated in (43). FOFC is enforced over the heads

in each of these Spell-Out domains, which are predominantly head-initial. If any heads in the clausal spine are head-final, they must be at these boundaries. The lowest head or heads in each Spell-Out domain can be head-final without violating FOFC, even though their complement is head-initial, because their complement is in a separate Spell-Out domain. This model accurately explains the very limited structural distribution of Chinese SFPs: SFPs are head-final heads and thus limited to these break points in FOFC enforcement, which may be at the lower clausal phase edge (traditionally called vP) and the higher clausal phase edge, at the clause periphery.

(43) **Spell-Out domains of the clausal spine in Chinese languages (hierarchical):**

$$
\begin{array}{ccc}
\textit{phase head} & & \textit{phase head} \\
\downarrow & & \downarrow \\
[_{\text{CP}} \; C(=\text{SFP}_2) & [_{\text{TP}} \; T \; ... \quad [_{\text{SFP1P}} \; \text{SFP}_1 \; ... & [_{v\text{P}} \; v \; [_{\text{VP}} \; V \; ...
\end{array}
$$

$\underbrace{\phantom{[_{\text{TP}} \; T \; ... \quad [_{\text{SFP1P}} \; \text{SFP}_1}}_{\textit{Spell-Out domain}}$ $\underbrace{\phantom{[_{v\text{P}} \; v \; [_{\text{VP}} \; V \; ...}}_{\textit{Spell-Out domain}}$

I furthermore proposed that Spell-Out can be suspended if there are morphological dependencies between the potential Spell-Out domain and higher functional heads. For example, in languages with verbal inflection, the morphological realization of a verb in the lower phase of the clause is dependent on the ϕ-features on T or the presence or absence of auxiliaries, which is information in the higher phase. In this case, the complement of the lower phase head cannot independently undergo Spell-Out and fix its surface morphophonological forms. The structure in the lower phase (XP in (44)) will instead undergo Spell-Out together with higher material, once the higher (CP) phase is built.[23] The inflectional dependency is indicated schematically in (44) as a link between T and v.

(44) **Spell-Out domains in languages with verbal inflection (hierarchical):**

$$
\begin{array}{ccc}
\textit{phase head} & \textit{phase head} & \\
\downarrow & \downarrow & \\
[_{\text{CP}} \; C & [_{\text{TP}} \; T \; ... & [_{\text{XP}} \; X \; ... [_{v\text{P}} \; v \; [_{\text{VP}} \; V \; ...
\end{array}
$$

$\underbrace{\phantom{[_{\text{TP}} \; T \; ... \quad [_{\text{XP}} \; X \; ... [_{v\text{P}} \; v \; [_{\text{VP}} \; V \; ...}}_{\textit{Spell-Out domain}}$

---

[23]To make the comparison to the Chinese structure in (43) above fully parallel, the head X above vP is taken to be the lower phase head. This head X in (44) corresponds to SFP$_1$ in (43), the hypothetical locus for a low SFP.

The effect of such morphological dependencies, then, is to combine the lower and higher portions of the clause into one Spell-Out domain and thus one domain of FOFC enforcement (42). This suspension of lower Spell-Out does not occur in Chinese languages because there is no verbal inflection, resulting in two Spell-Out domains and thus the opportunity for head-final heads in a clause-medial position (41/43).

Recall that one of the original motivations for FOFC is the lack of V-O-Aux word orders in Finnish and across modern and historic Germanic languages. If the auxiliary in such cases occupies T, the FOFC-based explanation of this V-O-Aux gap necessarily relies on FOFC being enforced across both the higher and lower phases of the clause. Under my proposal, this is a consequence of the fact that these languages have verbal inflection, unlike Chinese languages.

A prediction of my account is that a head-final head in an otherwise head-initial clausal spine — a potentially FOFC-violating structure — may occur in a clause-medial position only if the language lacks morphological dependencies between the higher and lower phases of the clause, such as verbal inflection. This prediction is supported by the existence of V-O-Aux word order in various languages without verbal inflection. Simpson 2001 shows that the apparently FOFC-violating V-O-Aux order is attested by an ability modal in Middle Chinese and a number of modern languages of mainland Southeast Asia. An example from Thai is reproduced in (45). Importantly, these languages discussed by Simpson lack verbal inflection.

(45) **Predicate-final possibility modal in Thai:**   (Simpson, 2001: 94)

Khun [[$_{VP}$ pai kap khaw phrung-nii] dai].
you   go with him   tomorrow   can

'You can go with him tomorrow.'

A similar connection between the availability of apparent FOFC-violating structures and the lack of verbal inflection has been noted previously by Philip (2013), citing Matthew Dryer (p.c.): "for many of the VO languages exhibiting final uninflected tense or aspect particles, there is simply no verbal inflection in the language at all" (p. 206).

With this background in mind, we now return to Singlish *already*. We have motivated above that Singlish *already* is the result of relexification pairing the surface form of the English adverb *already* with the syntax and semantics of the *le/liau/laa* SFPs in Chinese substrate languages. This

predicts *already* to be a head-final head at the lower phase edge, as made possible by independent Spell-Out of the complement of the lower phase. But we have determined that this is not the accurate synchronic position for Singlish *already*.

Unlike Chinese languages, Singlish exhibits verbal inflection. Many previous works note the optionality of Singlish past tense *-ed* and third singular *-s* (Ho & Platt, 1993; Gupta, 1994; Lai et al., 2013; a.o.), as also demonstrated in examples (11) vs (20) above, but what's relevant here is the *availability* of verbal inflection, which reflects a morphological dependency between the lower and higher phases of the clause.[24]

(46)   Wait lah, John say [∅ speak(s) Hokkien].   (Sato, 2014: 371)

This morphological dependency is indicated as a link between T and V in (47b) below. As noted above, this dependency blocks the independent Spell-Out of the complement of the lower phase, making a larger portion of the clause subject to FOFC evaluation together. This blocks *already* from appearing in its predicted structural position, as a head-final head in a clause-medial position, forcing its reanalysis to a clause-peripheral position. These two steps of relexification and reanalysis are illustrated in (47):

---

[24]Kenyon Branan and Karlos Arregi ask whether the presence or absence of verbal inflection changes the availability of *already* taking scope in a lower position. It appears that it does not. In particular, *already* takes high scope even in cases where no verbal inflection is realized, as in examples (27) and (29) above. We can think of this in one of two ways. First, we may hypothesize that the relevant inflectional dependency (an Agree relationship) is always established between T and the verb, with optionality reflecting only whether or not this information is later expressed on the verb. Alternatively, we may hypothesize that this dependency (Agree) is only established when verbal inflection is expressed, but that the existence of sufficient examples with verbal inflection in the input nonetheless forced the reanalysis of *already* to specifically target a clause-peripheral position, and this same high position is used even in cases the lower portion of the clause could constitute an independent Spell-Out domain.

(47) **Relexification and FOFC-driven reanalysis in the development of Singlish *already*:**

a. Chinese *le/liau/laa*:   b. Singlish *already*:
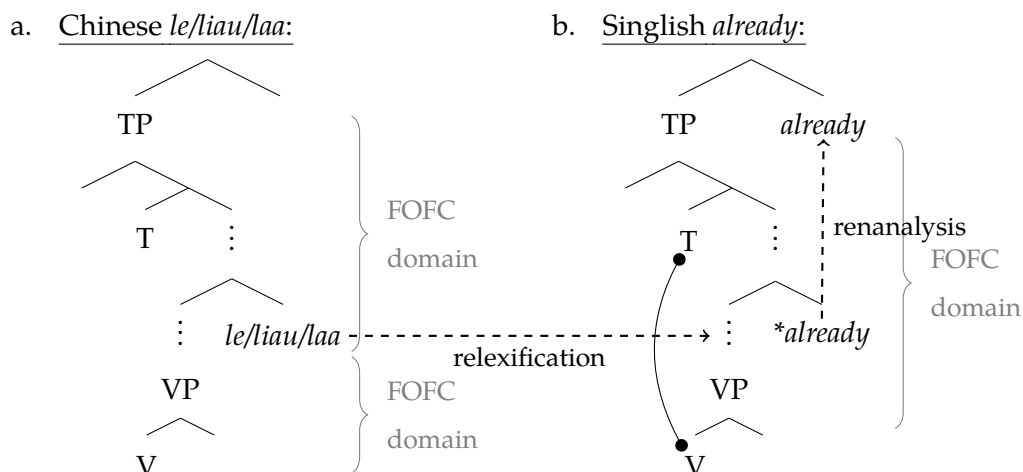
7 Conclusion

The close study of the syntax/semantics of Singlish *already* and its substrate cognates leads to a puzzle. Building on the earlier work of Bao 2005a, we identify the Chinese sentence-final particles *le/liau/laa* as the substrate sources of *already* in a process of relexification. These items all share a common semantics, distinct from that of the adverb *already* in standard Englishes, with the same sentence-final linear position. However, evidence from semantic scope in Cheong 2016, Erlewine 2017, and above shows that these items do not share a uniform hierarchical position: Singlish sentence-final *already* unambiguously occupies a high, clause-peripheral position, whereas its cognate SFPs *le/liau/laa* attach to a clause-medial position.

I argue that the consideration of the Final-over-Final Constraint (FOFC) can help explain this puzzling difference. In Erlewine 2017, I proposed that FOFC holds over Spell-Out domains and that morphological dependencies (Agree relationships) can suspend the independent Spell-Out of material in lower phases. Practically, the existence of verbal inflection forces structure in the lower and higher phases of a clausal spine to undergo Spell-Out together and therefore constitute a single domain for FOFC enforcement. Singlish allows for verbal inflection, unlike Chinese languages but like standard Englishes. This led to a difference in regions of FOFC enforcement between Singlish and its substrate Chinese languages, forcing a reanalysis of sentence-final *already* to a clause-peripheral position. This work in turn supports the relevance of FOFC for language development

and change — as also discussed in Biberauer et al. 2014 — as well as the characterization of FOFC as enforced over Spell-Out domains, as proposed in Erlewine 2017.

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