Singlish Where Got Rules One?
Constructing a Computational Grammar of Singlish
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Introduction

Singlish is a variety of English spoken in Singapore. It is influenced by the different languages especially Malay and Hokkien (a Chinese variety). While certain academics (e.g., Tan (2017)) and speakers see it as a representation of Singapore’s ethnic harmony, it has also been viewed to be ‘broken English’ and was discouraged during past official speeches (Lim, 2009).

In this project we construct a HPSG computational grammar of Singlish as a branch of an established English grammar (ERG).

Selected Grammar Features

Sentence Final Particles (SFP)

SFPs help speakers establish connections and align different ways of thinking (Wong, 2014). They can follow one another.

![Diagram of SFPs]

Because of their restricted order, we analysed them as heads that take complements. This allows the SFP’s properties to be directly passed up to the resultant phrase.

Relative Pronoun one

The word ‘one’ in Singlish is able to function as a relative pronoun that attaches at the back of the relative clause (RC). This has been predicted to be an influence from Chinese (Alsagoff & Ho, 1998).

![Diagram of one headfiller rule]

In addition, the RC formed through this rule can also become a noun through a nominalisation rule that pumps it up.

Grammar Performance and Conclusion

We collected sentences from Wiktionary and formed a test suite of 585 sentences, most of which contained certain Singlish words. We input these sentences into the Singlish grammar and the ERG’s standard English grammar (as a baseline test).

A gold treebank of 30 sentences (chosen from ones both had analyses for) were then made for both grammars.

<table>
<thead>
<tr>
<th>Sentence</th>
<th>ERG</th>
<th>Sg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearly langgar leh!</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Which bastard paotho to teacher that I carry handphone to school?</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>This boy damn act cute, I buay tank.</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Buay tank how they shamelessly give awards to themselves for being the best.</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

Difference in parsibility for some sentences

We found that 46.7% of English sentences and 70.0% of Singlish sentences had correct parse in goldset.

In conclusion, we have created the first computational grammar of Singlish. Large phenomena of Singlish were tackled through addition of lexical types and rules. We distribute the grammar and a treebank of fully parsed sentences under an open license.

In future, this foundation can be further built upon to address more specific syntactic behaviour.

References


Grammar available at: https://github.com/siewyeng/SinglishERG

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