Patterns of Macrofunctionality in Singlish Noun Phrases: A Questionnaire Survey

David Gil
University of Delaware

1. INTRODUCTION

This paper presents the results of a questionnaire survey designed to elicit selected aspects of the NP syntax of Singlish.[1]

The survey reported on herein constitutes one small part of a broader ongoing study, to be reported on in Gil (in preparation). (An outline of the study, and some preliminary results, were presented at the SEALS meeting, but are not included here, for lack of space.) This broader study is cross-linguistic in scope, based on a sample of some 20 languages each from two linguistic areas: Europe and East Asia. The above-mentioned study involves the elicitation of data from native speakers of the respective languages, guided by a Questionnaire on Noun-Phrase Structure. This questionnaire is reproduced in Appendix 1.[2]

The focus of the cross-linguistic study is on the internal syntax of NPs, with particular emphasis on constructions involving various types of modification. The study is meaning based, taking as its starting point a set of twelve semantically-defined functions, and examining the ways in which these functions are expressed in various languages. These twelve functions involve the association of six types of modifiers, *possessor*, *numeral*, *demonstrative*, *colour*, *locative* and *event*, with two kinds of things, *overt* and *covert*. The twelve functions are listed in (1) and (2) below; opposite each function is an example of an English NP in which it is expressed:[3]

(1) (pt) *overt* thing modified by a *possessor* "John's apple"
(nt) *overt* thing modified by a *numeral* "three apples"
(dt) *overt* thing modified by a *demonstrative* "this apple"
(ct) *overt* thing modified by a *colour* "red apple"
(lt) *overt* thing modified by a *locative* "apple on the table"
(et) *overt* thing modified by an *event* "apple John bought"

(2) (p) *covert* thing modified by a *possessor* "John's"
(n) *covert* thing modified by a *numeral* "three"
(d) *covert* thing modified by a *demonstrative* "this one"
(c) *covert* thing modified by a *colour* "red one"
(l) *covert* thing modified by a *locative* "one on the table"
(e) *covert* thing modified by an *event* "one John bought"

Constructions expressing the functions in (1) may be characterized as *modifications*, while those expressing the functions in (2) may be referred to as *reifications*. Similarly, grammatical markers contributing to the formation of modifier constructions may be characterized as *markers of modification*, while those assisting in the formation of objective constructions may be characterized as *markers of reification*, or, simply, *reifiers*.[4]

In the case of Singlish, the elicitation of data from native speakers poses certain methodological difficulties. Due to its basilectal nature, speakers often find it more difficult to provide robust and reliable judgements than is usually the case for languages and dialects with more established norms and a broader range of registers. Perhaps because of this, the judgements provided frequently display a substantial and potentially bewildering degree of variation, with different speakers offering different constructions while rejecting those of their fellow speakers. Thus, in order to obtain reliable data, facilitating the incorporation of Singlish into the cross-linguistic study described in the preceding paragraph, an alternative methodology was chosen, involving the administering of a written questionnaire to a large population of native speakers.[5]

At the initial stage, elicitation from native speakers provided a large variety of constructions, many of which were offered by one or more speakers but rejected by one or more others. (Some of the relevant data is discussed and analyzed in Gil 1995a.) Based on this preliminary data, a number of pilot questionnaires were constructed, and administered to large populations of native speakers, numbering several dozen. (One such questionnaire, on a related topic, is presented and discussed in Gil 1994b.) The results of the pilot questionnaires subsequently formed the basis for the formulation of the Singlish Noun-Phrase Questionnaire. This questionnaire is reproduced in Appendix 2.

The remainder of this paper is concerned with the Singlish Noun-Phrase Questionnaire, providing a description of the questionnaire, a summary of the results, and some preliminary discussion of their significance.

2. THE SINGLISH NOUN-PHRASE QUESTIONNAIRE

The Singlish Noun-Phrase Questionnaire presents 108 NPs, all occurring in direct-object position, in the template *I want* ___. The 108 NPs are arranged in twelve groups, expressing the twelve functions listed in (1) and (2) above. Within each group,

the NPs are arranged in a varying number of rows, and in two columns. Each row instantiates a different construction; within each row, the right-hand NP is obtained from the left-hand NP by addition of the definite article *the*. For each NP, speakers were asked to judge its grammaticality, and record their judgements by circling the appropriate sign: "√" for grammatical, "?" for intermediate or dubious grammaticality, "*" for ungrammatical.

The questionnaire was administered to 33 native speakers of Singlish, all National University of Singapore students, in my 1995 second-year semantics (LG203) class. The somewhat cryptic written instructions were supplemented with more detailed oral instructions, ensuring that the subjects all understood the task.

The results of the questionnaire are tabulated in Appendix 3. Opposite each sentence, the numbers of subjects who circled "√", "?" and "*" are indicated in the appropriate cells. The same results, converted to percentages, are presented again in Appendix 4.

In order for the results to be of use in the broader, cross-linguistic study, it was necessary to convert these figures into a single composite "√" / "?" / "*" judgement of each NP, commensurate with data based on ordinary elicitation. This was done in two stages. In stage 1, each NP was assigned a score according to the following formula:

(3) $100/33 \cdot (N[\surd] + 0.5 \cdot N[?])$

In the above formula, "N[√]" and "N[?]" stand for the numbers of subjects who circled "√" and "?" respectively. What formula (3) does is to weigh "√" and "?" judgements as 1 and 0.5 respectively, and then assign each NP accordingly a score ranging from 0 (all "*") to 100 (all "√"). These scores are presented in Appendix 5. In stage 2, these 0-to-100 scores were reconverted back into the desired composite "√" / "?" / "*" judgement associated with each NP. For this purpose, cognizance was taken of the distribution of 0-to-100 scores over all 108 NPs. This distribution is given in Table 1 below:

score	*0-4*	*5-9*	*10-14*	*15-19*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*
number of NPs	9	11	3	5	5	2	6	8	0	4
score	*50-54*	*55-59*	*60-64*	*65-69*	*70-74*	*75-79*	*80-84*	*85-89*	*90-94*	*95-100*
number of NPs	1	4	2	2	1	4	6	10	10	15

Table 1: Distribution of 0-to-100 Scores over the 108 NPs

As is evident from Table 1 above, the distribution of 0-to-100 scores over the 108 NPs exhibits a tri-modal pattern, with clear-cut peaks at both extremities of the range, plus an additional, tertiary peak, in the 30-39 score bracket. In converting the 0-to-100 scores back into composite judgements, these three peaks were thus taken as focal points for the three judgements, in accordance with the following key:[6]

(4) 0-9..... *
10-39.....?
40-100.....√

The outcome of the above reconversion, in composite "√" / "?" / "*" judgements, is given in Appendix 6. It is these data that are used in the cross-linguistic study, to be reported on in Gil (in preparation).

3. Aspects of Singlish Noun-Phrase Syntax

The first salient result to emerge from the Singlish Noun-Phrase Questionnaire results is that NPs without the definite article *the* (in the left-hand column) are generally of greater acceptability than NPs with *the* (in the right-hand column). Comparing the respective "√" / "?" / "*" judgements, NPs without *the* are of higher grammaticality than their counterparts with *the* in 25 cases, of similar grammaticality in 27, and of lower grammaticality in only 2; moreover, in both of these two cases, the difference is between "?" for the former and "√" for the latter. These results suggest that the definite article *the* is not an intrinsic part of any of the constructions under investigation; that is to say, it does not function as a marker of reification or of modification, nor does it serve to license these constructions in any way. Thus, for the purpose of the cross-linguistic study, the definite article *the* can be safely ignored.[7]

A second result is specific to constructions involving a numeral: in such constructions, the nominal plural suffix *-s* on

apple is optional, just as it is optional in other, non-overtly quantified NPs with plural reference. In other words, the plural suffix *-s* is not "governed" in any sense of the word by the semantically plural quantifier, as it is in English and many other European languages. Hence, in the context of the cross-linguistic study, the nominal plural suffix *-s* can also be ignored.[8]

Accordingly, the Singlish data cited in Gil (in preparation) consist only of those NPs without the definite article *the* (ie. in the left-hand column of Appendix 6) and without the plural suffix *-s*, which are associated with either "√" or "?" judgements. These NPs are reproduced in (5) and (6) below, arranged in accordance with the twelve semantically-based functions defined in (1) and (2) above:

(5)
(pt) John apple
John's apple
? apple John one
John that apple
apple John that one
? apple John's one
? John's that apple
? apple John's that one
(nt) three apple
(dt) this apple
(ct) red apple
red colour apple
apple red one
apple red colour one
? red colour that apple
? red that one apple
? apple red that one
apple red colour that one
(lt) apple on the table
apple on the table one
? apple table one
on the table that apple
table that apple
? on the table that one apple
? table that one apple
apple on the table that one

? apple table that one
(et) ? apple John buy
apple John buy one
John buy that apple
apple that John buy
? John buy that one apple
apple John buy that one

(6) (p) John's
John one
John that one
John's one
? John's that one
(n) three
(d) this
this one
(c) red one
red colour one
red that one
red colour that one
(l) on the table one
table one
on the table that one
table that one
(e) John buy one
John buy that one

Altogether, the NPs in (5) and (6) above make use of eight construction markers: a phonologically null marker Ø; three simple construction markers, *'s*, *one* and *that*; and four complex construction markers, *that one*, *'s one*, *'s that* and *'s that one*. These eight construction markers take part in the formation of a variety of NP constructions, expressing different subsets of the twelve functions defined in (1) and (2) above. The distribution of the eight construction markers, and the constructions they occur in, over the twelve functions, is represented schematically in Tables 2 - 9 on the following pages.

In Tables 2 - 9, the bottom row of each table specifies the construction marker whose distribution the table describes. The body of each table consists of twelve cells arranged in a two-by-six matrix, each cell corresponding to one of the twelve functions in (1) and (2); the mnemonic for the function in question appears in the upper left-hand corner of each cell. Within each cell, the constructions making use of the appropriate construction marker to express the function in question are

specified in abbreviated form; if there are none, the cell is empty. The symbols used to abbreviate the constructions are spelled out in Table 10 below, which follows Tables 2 - 9.

Inspection of Tables 2 - 9 shows that from a typological perspective, Singlish NPs are typical of those found within the East Asian linguistic area. More specifically, many aspects of the internal syntax of Singlish NPs are patterned after the substratum languages underlying the development of Singlish — primarily Hokkien, Teochew, Cantonese and Malay. However, other syntactic features of Singlish NPs have no obvious diachronic source, thereby underscoring the uniqueness of Singlish as a distinct language variety.[9]

Comparison of the simple construction markers, *'s*, *one*, and *that*, in Tables 3 - 5 respectively, highlights an important structural property, that of *macrofunctionality*: the number of different functions associated with one and the same construction marker. Whereas *'s* is associated with only two out of the twelve functions, *that* is associated with four, and *one* with nine. Thus, *'s*, *that* and *one* may be characterized as ranging over a cline from low through medium to high degrees of macrofunctionality. In general, the presence of non-null construction markers of high macrofunctionality is a characteristic feature of East Asian languages; such markers are uncommon in European languages. Indeed, whereas Singlish *'s*, of low macrofunctionality, is of largely the same distribution as its English counterpart, Singlish *that* and *one*, of higher

pt	nt	dt	ct	lt	et
MT	MT	MT	MM T	T M	(T M)
p	n	d	c	l	e
	M	M			

Table 2: Ø

pt	nt	dt	ct	lt	et
M-x T					
p	n	d	c	l	e
M-x					

Table 3: 's

pt	nt	dt	ct	lt	et
(T M x)			T MM x	T M(N) x	T M x
p	n	d	c	l	e
M x		M x	MM x	MN x	M x

Table 4: one

pt	nt	dt	ct	lt	et
M x T			(M x T)	MN x T	M x T/T x M
p	n	d	c	l	e

Table 5: that

pt	nt	dt	ct	lt	et
T M x y			(M x y T) / T (M)M x y	(MN x y T) / T M(N) x y	(M x y T) / T M x y
p	n	d	c	l	e
M x y			MM x y	MN x y	M x y

Table 6: that one

pt	nt	dt	ct	lt	et
(T M-x y)					
p	n	d	c	l	e
M-x y					

Table 7: 's one

pt	nt	dt	ct	lt	et
(M-x y T)					
p	n	d	c	l	e

Table 8: 's that

pt	nt	dt	ct	lt	et
(T M-x y z)					
p	n	d	c	l	e
(M-x y z)					

Table 9: 's that one

Symbol	*Explanation*	*Examples*
T	thing	*apple*
M	modifier (a variable ranging over possessor, numeral, demonstrative, colour expression, locative expression, and event expression)	*John, three, this, red, on the table, John buy*
M	augmented modifier (a modifier expanded by the addition of some expression)	*red colour*
N	diminished modifier (a modifier reduced by the subtraction of some expression)	*table*
x	simple construction marker	*'s, one, that*
x y	complex construction marker formed from x and y	*that one, 's one, 's that*
x y z	complex construction marker formed from x, y and z	*'s that one*
-	word-internal morpheme boundary	between *John* and *'s*
(...)	encloses expressions of dubious grammaticality ("?")	
/	separates alternative constructions in same cell (in the case of alternative modifiers, ie. MM and MN, the symbol "/" is omitted)	

Table 10: Key to Tables 2 - 9

macrofunctionality, differ strikingly in their syntax and semantics from their English counterparts.

In several respects, Singlish *one* is less like its English cognate, and more like various grammatical markers in the

substratum languages, such as Hokkien *e²⁴*, Teochew *kai⁵⁵*, Cantonese *ge³³*, Singaporean Malay *yang* and Bazaar Malay *mia*. In English, *one* is a reifier, occurring with various kinds of modifiers to form expressions denoting understood things, thereby expressing some of the functions in (2). However, as evident in Table 4, in Singlish, *one* has a wider distribution: in addition to its role as a reifier, it has the further role of a modification marker, occurring with different kinds of modifiers, in construction with the expressions they modify, thereby expressing some of the functions in (1). Thus, for example, whereas reifications such as *red one* are possible in both Singlish and English, modification constructions such as *apple red one* are possible only in Singlish. In this respect, Singlish *one* resembles its Chinese and Malay counterparts, which are also markers of reification and modification. Nevertheless, it differs from each of these in the specifics of its distribution. For example, it differs from Hokkien *e²⁴* and Teochew *kai⁵⁵* in that it does not occur in construction with numerals; from Cantonese *ge³³* in that it does occur in construction with demonstratives; and from Singaporean Malay *yang* in that it does occur in construction with possessors.[10] A second difference between Singlish *one* and its English counterpart is that the latter is a pronominal form, while the former is not. In English, whenever *one* functions as a reifier, occurring in a construction expressing one of the functions in (2), it can be replaced by a noun, resulting in a construction expressing the corresponding function in (1); for example, *the one that John bought* > *the apple that John bought*. In Singlish, however, this is not always the case; thus, for example, whereas *John buy one* is grammatical with the meaning "the one that John bought", *John buy apple* is ungrammatical with the reading "the apple that John bought" (it is, however, grammatical as a complete sentence). Again, in this respect, Singlish *one* resembles Hokkien *e²⁴*, Teochew *kai⁵⁵*, Cantonese *ge³³*, Singaporean Malay *yang* and Bazaar Malay *mia*. Consequently, whereas English *one*, as a proform, occurs in a variety of different constructions in relation to its modifiers, Singlish *one*, as a grammatical marker, always occurs on the same side of its modifiers. Specifically, it always follows its sister constituent — as is the case for Hokkien *e²⁴*, Teochew *kai⁵⁵*, Cantonese *ge³³* and Bazaar Malay *mia*, but not Singaporean Malay *yang*, which always precedes its sister.[11] Related to the above points is an important semantic distinction. Whereas in English the reifier *one* retains its singular meaning, in Singlish the modification cum reification marker *one* is

bleached of its numerical meaning, forming expressions that are unmarked for number. Thus, for example, whereas in English *the one that John bought* is necessarily singular, in Singlish *(apple) John buy one* may be understood as singular, plural or mass. Once more, in this respect, Singlish *one* resembles Hokkien *e*^{24}, Teochew *kai*^{55}, Cantonese *ge*^{33}, Singaporean Malay *yang* and Bazaar Malay *mia*.[12]

Singlish *that* also differs from its English counterpart in a variety of ways. To begin, as evident from Table 5, *that* occurs in two distinct constructions, involving postnominal and prenominal modification respectively. The postnominal construction is limited in its distribution to a single function, thing modified by event; in this function, it corresponds precisely to its English counterpart *that*. The prenominal construction is of somewhat wider distribution, expressing four different functions: thing modified by possessor, colour, locative, and event.[13] Unlike Singlish *one*, however, *that* is only a modification marker: it is limited in its distribution to constructions expressing the functions in (1). In this respect, it has fewer clear counterparts in the substratum languages, in which — as noted in the preceding paragraph — the corresponding forms are typically associated with the dual role of modification and reification marker. Interestingly, though, the distribution of prenominal *that* across the twelve functions is identical to that of the Cantonese modification marker *dik*^{5}.[14] Nevertheless, constructions with prenominal *that* differ from their Cantonese counterparts both syntactically and semantically. Syntactically, whereas in Cantonese *dik*^{5} forms a constituent with the modifier preceding it (in this respect resembling markers such as Hokkien *e*^{24}, Teochew *kai*^{55}, and Cantonese *ge*^{33}), in Singlish *that* forms a constituent with the thing expression following it.[15] And semantically, whereas in Cantonese, constructions with *dik*^{5} are unmarked for definiteness and for number — again resembling Hokkien *e*^{24}, Teochew *kai*^{55}, and Cantonese *ge*^{33}, in Singlish, constructions with prenominal *that* are marked as definite. These characteristics of Singlish *that* show clearly that in such constructions, *that* retains its role of a demonstrative. Going one step further, they might also suggest that constructions of the form *M that T* may be analyzed as stacked zero-marked modifications, *T* being modified by *that*, the resulting constituent *that T* being modified in turn by *M*. However, such an analysis is belied by the absence of zero-marked prenominal locative and event modifiers. To wit, if *John buy that apple* ("the apple that John bought") were analyzed as *John buy* modifying *that apple*

in a zero-marked construction, then there would be no reason why *John buy* should not be able to modify the simpler expression *apple* in a zero-marked construction, yielding **John buy apple* ("the apple that John bought"). Thus, it can only be concluded that the prenominal modifier is licensed by *that*; in other words, that *that* does indeed play the role of a modification marker. Accordingly, in prenominal constructions of the form *M that T*, the construction marker *that* must be associated with the dual role of demonstrative and modification marker.

Tables 6 - 9 portray the distribution of the four complex construction markers. Of these four, the three containing *'s*, in Tables 7 - 9, are, like simple *'s* in Table 3, restricted in their distribution to functions involving a possessor. Moreover, they are, for the most part, of somewhat marginal acceptability — due, probably, to a perceived clash in registers, between the more basilectal *that* and *one* and the somewhat less colloquial *'s*. (As evident in Tables 2, 4, 5 and 6, Singlish has a plethora of alternative strategies for expressing possession, not involving *'s*.)

Of interest is the remaining complex construction marker, *that one*. Singlish *that one* would appear to be a straightforward calque on Chinese constructions consisting of demonstrative plus classifier, such as Hokkien *hit⁴ e²⁴*, *hit⁴ liap⁴* and so on, Teochew *hik⁵ kai⁵⁵*, *hik⁵ liap⁵* and so forth, and Cantonese *go³⁵ go³³*, *go³⁵ lap⁵* and others.[16] As evident in Table 6, Singlish *that one* exhibits a considerable degree of macrofunctionality, taking part in the expression of eight out of the twelve functions; in this regard, *that one* closely resembles its above-mentioned Chinese counterparts. Moreover, of the eight functions associated with *that one*, three can be expressed with alternative prenominal and postnominal modifiers; in this respect, *that one* differs from its Chinese counterparts, which generally occur only in prenominal constructions.[17] When occurring in construction with a modifier *M*, the sequence *that one* clearly forms a constituent: *M [that one]*.[18] In fact, the complex construction marker *that one* may be analyzed as consisting of demonstrative cum modification marker *that* in construction with reifier *one*. As demonstrative plus reifier, the sequence *that one* expresses function (2d), namely, covert thing modified by a demonstrative. Accordingly, *that one* is understood as definite. Again, in this respect, Singlish *that one* resembles its Chinese counterparts consisting of demonstrative plus classifier, which are also understood as definite. The role of *that* as modification marker in *that one* is evident in constructions of the form *M that one*, in the context of locative and event modifiers. For

example, if *John buy that one* ("the one that John bought") were analyzed as *John buy* modifying *that one* in a zero-marked construction, then there would be no explanation for why *John buy* should not be able to modify the simpler expression *apple* in a zero-marked construction, yielding **John buy apple* ("the apple that John bought"). Thus, in constructions of the form *M that one*, the marker *that* is not just a demonstrative but also a marker of modification. Once more, in this regard, Singlish *that one* closely parallels its Chinese counterparts consisting of demonstrative plus classifier.

The format chosen for Tables 2 - 9 is not arbitrary. Within each table, the distribution of non-empty cells is non-random; rather, the cells that are occupied tend to form a single contiguous zone. Apparent exceptions to this claim are evident in Tables 4 - 6, where the occupied cells occur at both ends of the table while the middle cells are empty; however, these exceptions can be handled by a simple maneuver. Rather than considering the six columns as situated on a line segment, we may view the six semantic types of modifiers as forming a circle, with possessor (at extreme left of the table) adjacent to event (at extreme right). The twelve functions may accordingly be arranged in a semantic map in the shape of a cylinder, as represented in Figure 1 below:[19]

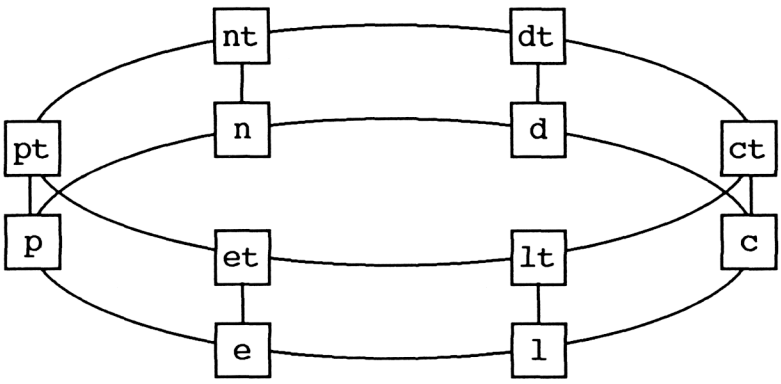

Figure 1: A Semantic Map of the Twelve NP Functions in (1) and (2)

In a semantic map such as the above, adjacent functions are connected by lines. In general, the closer two functions are located to each other on the map, the more likely they are to be

expressed by constructions formed from the same construction marker, or, more specifically, by the same construction itself. In particular, the following two constraints on contiguity are upheld:

(7) (a) For any construction marker X, the functions expressible by a construction formed from X occupy a single contiguous zone on the semantic map

(b) For any construction C, the functions expressible by C occupy a single contiguous zone on the semantic map

Examination of Tables 2 - 9 with respect to the semantic map in Figure 1 above shows that the above two constraints are upheld by the eight NP construction markers of Singlish and the constructions in which they occur.

However, the Singlish data substantially underdetermine the above semantic map; many alternative maps would have been consistent with the same facts. Fuller, more specific motivation for the above semantic map is provided by the broader, ongoing cross-linguistic survey, within which the Singlish study is but one small part. At present, the above map is consistent with all the data that has been collected, from a variety of languages across the world. The above semantic map thus constitutes a working hypothesis about the internal syntax of NPs in Universal Grammar. Whether it will withstand the completion of the cross-linguistic study, only time will tell.

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APPENDIX 1: THE NOUN-PHRASE QUESTIONNAIRE

********** INTRODUCTION **********

WHO IS THIS QUESTIONNAIRE FOR?
The questionnaire is designed for subjects with a background in linguistics, and extensive familiarity with the syntactic patterns of the target language or, alternatively, access to a native speaker.

HOW LONG WILL IT TAKE TO DO THIS QUESTIONNAIRE?
Some subjects who have already completed the questionnaire have been able to do so in times ranging from about 20 minutes upwards. You may feel free to provide as little or as much information as you have time and inclination.

WHAT IS THE PURPOSE OF THIS QUESTIONNAIRE?
The purpose of this questionnaire is to survey the major NP-internal constructions occurring in different languages, with particular emphasis on the morphological and syntactic strategies for expressing attribution / modification and nominalization.

********** INSTRUCTIONS **********

PART 1:

Below are 12 NP CONSTRUCTION TYPES, exemplified by the direct objects of English sentences. Please translate these sentences into the target language, thereby showing how these construction types are expressed in the target language.

Please provide morpheme-by-morpheme glosses for all the translated sentences (the first occurrence of each morpheme in the sentences is enough). In addition, please indicate where

there is morphological agreement (eg. an adjective agreeing with its head noun) or government (eg. a numeral assigning genitive case to its head noun).

Further comments:

1. In some cases, alternative variants are available for the same construction. For example, English has different prenominal and postnominal possessors in (a1) and (b1), a variety of constructions in (a6) and (b6), and the optional presence of "one" in (b3). Other languages may have different alternatives available for other constructions. Please provide all the major alternatives that are possible in the target language.
2. Feel free to use your own judgement in the choice of particular lexical items. For example, if "red" is idiosyncratic in the target language, choose another colour. Or if all colour words are idiosyncratic, choose a size word. Choose a typical name and an appropriate fruit for the target language.

The first 6 construction types involve a word denoting a thing, "apple", modified or quantified by 6 different kinds of expressions:

(a) (1) THING MODIFIED BY ITS POSSESSOR, eg.
"I want John's apple"
"I want the apple of John"
"I want the apple of John's"
(2) THING QUANTIFIED BY A NUMERAL, eg.
"I want three apples"
(3) THING MODIFIED BY A DEMONSTRATIVE, eg.
"I want this apple"
(4) THING MODIFIED BY A COLOUR (OR SIZE) EXPRESSION, eg.
"I want the red apple"
(5) THING MODIFIED BY A LOCATIVE EXPRESSION, eg.
"I want the apple on the table"
(6) THING MODIFIED BY AN ACTIVITY, eg.
"I want the apple John bought"
"I want the apple that John bought"
"I want the apple which John bought"

The next 6 construction types correspond to the previous 6, except that the word denoting a thing, "apple", is taken to be understood, ie. given by context.

(b) (1) MODIFYING POSSESSOR BY ITSELF AS NP HEAD, eg.
"I want John's"
"I want the one of John"
"I want the one of John's"

(2) QUANTIFYING NUMERAL BY ITSELF AS NP HEAD, eg.
"I want three"

(3) MODIFYING DEMONSTRATIVE BY ITSELF AS NP HEAD, eg.
"I want this"
"I want this one"

(4) MODIFYING COLOUR (OR SIZE) EXPRESSION BY ITSELF AS NP HEAD, eg.
"I want the red one"

(5) MODIFYING LOCATIVE EXPRESSION BY ITSELF AS NP HEAD, eg.
"I want the one on the table"

(6) MODIFYING ACTIVITY BY ITSELF AS NP HEAD, eg.
"I want the one John bought"
"I want the one that John bought"
"I want the one which John bought"

PART 2:

For each of the grammatical morphemes (either free or bound) occurring with the NP construction types in Part 1, indicate briefly what other major functions or meanings it has. For example, for English, an answer might look as follows:

's	no other functions
of	occasional prepositional and partitive functions ("John partook of the wine")
that	sentential complementizer ("John said that I left")
	distal demonstrative ("that apple")
which	interrogative pronoun ("Which apple did John eat?")
one	numeral ("one apple")

********* GENERAL COMMENT *********

It may have struck you as a little unusual that the NP construction types under examination are defined semantically, rather than syntactically, as is more customary. The reason I chose semantic definitions is that one of the main goals of this questionnaire is to see whether the conventional syntactic labels are indeed valid cross-linguistically. For example, in English, (a1) is a genitive construction, (a4) an adjectival construction, and (a6) a relative-clause construction. However, in Mandarin, their translations are all of the identical form "X de THING", providing at least prima facie reason to suspect that perhaps Mandarin does not distinguish between genitive, adjective and relative clause constructions.

APPENDIX 2: THE SINGLISH NOUN-PHRASE QUESTIONNAIRE

Judge the grammaticality of the following NPs, as they occur in the object position of the following sentence:

I want _____

Part 1

(1) "John's apple"

√	?	*	John apple	√	?	*	the John apple
√	?	*	John's apple	√	?	*	the John's apple
√	?	*	John that apple	√	?	*	the John that apple
√	?	*	John's that apple	√	?	*	the John's that apple
√	?	*	apple John one	√	?	*	the apple John one
√	?	*	apple John's one	√	?	*	the apple John's one
√	?	*	apple John that one	√	?	*	the apple John that one
√	?	*	apple John's that one	√	?	*	the apple John's that one

(2) "(the) three apples"

√	?	*	three apple	√	?	*	the three apple
√	?	*	three apples	√	?	*	the three apples

(3) "this apple"

√	?	*	this apple	√	?	*	the this apple

(4) "the red apple"

√	?	*	red apple	√	?	*	the red apple
√	?	*	red that apple	√	?	*	the red that apple
√	?	*	red that one apple	√	?	*	the red that one apple
√	?	*	apple red one	√	?	*	the apple red one
√	?	*	apple red that one	√	?	*	the apple red that one
√	?	*	red colour apple	√	?	*	the red colour apple
√	?	*	red colour that apple	√	?	*	the red colour that apple
√	?	*	red colour that one apple	√	?	*	the red colour that one apple
√	?	*	apple red colour one	√	?	*	the apple red colour one
√	?	*	apple red colour that one	√	?	*	the apple red colour that one

(5) "the apple on the table"

√	?	*	table that apple	√	?	*	the table that apple
√	?	*	table that one apple	√	?	*	the table that one apple
√	?	*	apple table one	√	?	*	the apple table one
√	?	*	apple table that one	√	?	*	the apple table that one
√	?	*	on the table that apple	√	?	*	the on the table that apple
√	?	*	on the table that one apple	√	?	*	the on the table that one apple
√	?	*	apple on the table	√	?	*	the apple on the table
√	?	*	apple on the table one	√	?	*	the apple on the table one
√	?	*	apple on the table that one	√	?	*	the apple on the table that one

(6) "the apple that John bought"

√	?	*	John buy that apple	√	?	*	the John buy that apple
√	?	*	John buy that one apple	√	?	*	the John buy that one apple
√	?	*	apple John buy	√	?	*	the apple John buy
√	?	*	apple that John buy	√	?	*	the apple that John buy
√	?	*	apple John buy one	√	?	*	the apple John buy one
√	?	*	apple John buy that one	√	?	*	the apple John buy that one

Part 2

Now assume a context in which the head noun, "apple", is understood. For exam

(Whose / Which / How many apple(s) do you want?) I want _____

(7) "John's"

√	?	*	John's	√	?	*	the John's
√	?	*	John one	√	?	*	the John one
√	?	*	John's one	√	?	*	the John's one
√	?	*	John that one	√	?	*	the John that one
√	?	*	John's that one	√	?	*	the John's that one

(8) "three"

√	?	*	three	√	?	*	the three

(9) "this"

√	?	*	this	√	?	*	the this
√	?	*	this one	√	?	*	the this one

(10) "the red one"

√	?	*	red one	√	?	*	the red one
√	?	*	red that one	√	?	*	the red that one
√	?	*	red colour one	√	?	*	the red colour one
√	?	*	red colour that one	√	?	*	the red colour that one

(11) "the one on the table"

√	?	*	table one	√	?	*	the table one
√	?	*	table that one	√	?	*	the table that one
√	?	*	on the table one	√	?	*	the on the table one
√	?	*	on the table that one	√	?	*	the on the table that one

(12) "the one that John bought"

√	?	*	John buy one	√	?	*	the John buy one
√	?	*	John buy that one	√	?	*	the John buy that one

APPENDIX 3: THE RESULTS (IN NUMBERS OF SUBJECTS)

Part 1

√	?	*		√	?	*	
(1)	"John's apple"						
13	6	14	John apple	1	3	29	the John apple
31	2	0	John's apple	3	0	30	the John's apple
23	7	3	John that apple	0	1	32	the John that apple
5	6	22	John's that apple	0	0	33	the John's that apple
11	4	18	apple John one	11	10	12	the apple John one
9	3	21	apple John's one	9	8	16	the apple John's one
12	6	15	apple John that one	8	8	17	the apple John that one
2	3	28	apple John's that one	1	4	28	the apple John's that one
(2)	"(the) three apples"						
25	3	5	three apple	25	5	3	the three apple
29	3	1	three apples	29	2	2	the three apples
(3)	"this apple"						
33	0	0	this apple	1	4	28	the this apple
(4)	"the red apple"						
31	1	1	red apple	32	1	0	the red apple
2	0	31	red that apple	0	1	32	the red that apple
3	2	28	red that one apple	0	2	31	the red that one apple
25	2	6	apple red one	27	2	4	the apple red one
4	2	27	apple red that one	3	5	25	the apple red that one
29	3	1	red colour apple	32	1	0	the red colour apple
9	5	19	red colour that apple	5	2	26	the red colour that apple
1	1	31	red colour that one apple	0	3	30	the red colour that one apple
27	2	4	apple red colour one	29	3	1	the apple red colour one
18	1	14	apple red colour that one	9	4	20	the apple red colour that one
(5)	"the apple on the table"						
23	4	6	table that apple	20	2	11	the table that apple
6	6	21	table that one apple	7	2	24	the table that one apple
9	5	19	apple table one	10	2	21	the apple table one
7	7	19	apple table that one	7	7	19	the apple table that one
30	1	2	on the table that apple	11	3	19	the on the table that apple
7	9	17	on the table that one apple	1	3	29	the on the table that one apple
24	3	6	apple on the table	32	1	0	the apple on the table
21	3	9	apple on the table one	23	4	6	the apple on the table one
16	5	12	apple on the table that one	15	8	10	the apple on the table that one

(6) "the apple that John bought"

28	0	5	John buy that apple	1	0	32	the John buy that apple
5	6	22	John buy that one apple	0	2	32	the John buy that one apple
8	6	19	apple John buy	29	1	3	the apple John buy
23	2	8	apple that John buy	29	1	3	the apple that John buy
27	2	4	apple John buy one	29	3	1	the apple John buy one
18	4	11	apple John buy that one	16	5	12	the apple John buy that one

Part 2

√	?	*		√	?	*	

(7) "John's"

27	2	4	John's	0	0	33	the John's
29	2	2	John one	7	5	21	the John one
26	1	6	John's one	1	2	30	the John's one
28	3	2	John that one	1	3	29	the John that one
3	9	21	John's that one	0	1	32	the John's that one

(8) "three"

33	0	0	three	6	0	27	the three

(9) "this"

30	2	1	this	0	0	33	the this
33	0	0	this one	3	2	28	the this one

(10) "the red one"

30	1	2	redone	31	2	0	the red one
19	5	9	red that one	0	3	30	the red that one
31	1	1	red colour one	33	0	0	the red colour one
26	4	3	red colour that one	13	7	13	the red colour that one

(11) "the one on the table"

24	6	3	table one	30	3	0	the table one
29	2	2	table that one	25	3	5	the table that one
30	*3*	*0*	*on the table one*	*14*	*3*	*16*	*the on the table one*
28	1	4	on the table that one	10	3	20	the on the table that one

(12) "the one that John bought"

32	0	1	John buy one	7	1	25	the John buy one
32	1	0	John buy that one	5	2	26	the John buy that one

APPENDIX 4: THE RESULTS (IN PERCENTAGES OF SUBJECTS)

Part 1

√	?	*		√	?	*	
(1) "John's apple"							
39	18	42	John apple	3	9	88	the John apple
94	6	0	John's apple	9	0	91	the John's apple
70	21	9	John that apple	0	3	97	the John that apple
15	18	67	John's that apple	0	0	100	the John's that apple
33	12	55	apple John one	33	30	36	the apple John one
27	9	64	apple John's one	27	24	48	the apple John's one
36	18	45	apple John that one	24	24	52	the apple John that one
6	9	85	apple John's that one	3	12	85	the apple John's that one
(2) "(the) three apples"							
76	9	15	three apple	76	15	9	the three apple
88	9	3	three apples	88	6	6	the three apples
(3) "this apple"							
100	0	0	this apple	3	12	85	the this apple
(4) "the red apple"							
94	3	3	red apple	97	3	0	the red apple
6	0	94	red that apple	0	3	97	the red that apple
9	6	85	red that one apple	0	6	94	the red that one apple
76	6	18	apple red one	82	6	12	the apple red one
12	6	82	apple red that one	9	15	76	the apple red that one
88	9	3	red colour apple	97	3	0	the red colour apple
27	15	58	red colour that apple	15	6	79	the red colour that apple
3	3	94	red colour that one apple	0	9	91	the red colour that one apple
82	6	12	apple red colour one	88	9	3	the apple red colour one
55	3	42	apple red colour that one	27	12	61	the apple red colour that one

(5) "the apple on the table"

70	12	18	table that apple	61	6 33	the table that apple
18	18	64	table that one apple	21	6 73	the table that one apple
27	15	58	apple table one	30	6 64	the apple table one
21	21	58	apple table that one	21	21 58	the apple table that one
91	3	6	on the table that apple	33	9 58	the on the table that apple
21	27	52	on the table that one apple	3	9 88	the on the table that one apple
73	9	18	apple on the table	97	3 0	the apple on the table
64	9	27	apple on the table one	70	12 18	the apple on the table one
48	15	36	apple on the table that one	45	24 30	the apple on the table that one

(6) "the apple that John bought"

85	0	15	John buy that apple	3	0 97	the John buy that apple
15	18	67	John buy that one apple	0	6 97	the John buy that one apple
24	18	58	apple John buy	88	3 9	the apple John buy
70	6	24	apple that John buy	88	3 9	the apple that John buy
82	6	12	apple John buy one	88	9 3	the apple John buy one
55	12	33	apple John buy that one	48	15 36	the apple John buy that one

Part 2

√	?	*		√	?	*	

(7) "John's"

82	6	12	John's	0	0 100	the John's
88	6	6	John one	21	15 64	the John one
79	3	18	John's one	3	6 91	the John's one
85	9	6	John that one	3	9 88	the John that one
9	27	64	John's that one	0	3 97	the John's that one

(8) "three"

100	0	0	three	18	0 82	the three

(9) "this"

91	6	3	this	0	0 100	the this
100	0	0	this one	9	6 85	the this one

(10) "the red one"

91	3	6	red one	94	6 0	the red one
58	15	27	red that one	0	9 91	the red that one
94	3	3	red colour one	100	0 0	the red colour one
79	12	9	red colour that one	39	21 39	the red colour that one

(11) "the one on the table"

73	18	9	table one	91	9	0	the table one
88	6	6	table that one	76	9	15	the table that one
91	9	0	on the table one	42	9	48	the on the table one
85	3	12	on the table that one	30	9	61	the on the table that one

(12) "the one that John bought"

97	0	3	John buy one	21	3	76	the John buy one
97	3	0	John buy that one	15	6	79	the John buy that one

APPENDIX 5: THE RESULTS (IN SCORES FROM 0 TO 100)

Part 1

(1) "John's apple"

48	John apple	8	the John apple
97	John's apple	9	the John's apple
80	John that apple	2	the John that apple
24	John's that apple	0	the John's that apple
39	apple John one	48	the apple John one
32	apple John's one	39	the apple John's one
45	apple John that one	36	the apple John that one
11	apple John's that one	9	the apple John's that one

(2) "(the) three apples"

80	three apple	83	the three apple
92	three apples	91	the three apples

(3) "this apple"

100	this apple	9	the this apple

(4) "the red apple"

95	red apple	98	the red apple
6	red that apple	2	the red that apple
12	red that one apple	3	the red that one apple
79	apple red one	85	the apple red one
15	apple red that one	17	the apple red that one
92	red colour apple	98	the red colour apple
35	red colour that apple	18	the red colour that apple
5	red colour that one apple	5	the red colour that one apple
85	apple red colour one	92	the apple red colour one
58	apple red colour that one	33	the apple red colour that one

(5) "the apple on the table"

70	12	18	table that apple	61	6	33	the table that apple
18	18	64	table that one apple	21	6	73	the table that one apple
27	15	58	apple table one	30	6	64	the apple table one
21	21	58	apple table that one	21	21	58	the apple table that one
91	3	6	on the table that apple	33	9	58	the on the table that apple
21	27	52	on the table that one apple	3	9	88	the on the table that one apple
73	9	18	apple on the table	97	3	0	the apple on the table
64	9	27	apple on the table one	70	12	18	the apple on the table one
48	15	36	apple on the table that one	45	24	30	the apple on the table that one

(6) "the apple that John bought"

85	0	15	John buy that apple	3	0	97	the John buy that apple
15	18	67	John buy that one apple	0	6	97	the John buy that one apple
24	18	58	apple John buy	88	3	9	the apple John buy
70	6	24	apple that John buy	88	3	9	the apple that John buy
82	6	12	apple John buy one	88	9	3	the apple John buy one
55	12	33	apple John buy that one	48	15	36	the apple John buy that one

Part 2

√	?	*		√	?	*	

(7) "John's"

82	6	12	John's	0	0	100	the John's
88	6	6	John one	21	15	64	the John one
79	3	18	John's one	3	6	91	the John's one
85	9	6	John that one	3	9	88	the John that one
9	27	64	John's that one	0	3	97	the John's that one

(8) "three"

100	0	0	three	18	0	82	the three

(9) "this"

91	6	3	this	0	0	100	the this
100	0	0	this one	9	6	85	the this one

(10) "the red one"

91	3	6	red one	94	6	0	the red one
58	15	27	red that one	0	9	91	the red that one
94	3	3	red colour one	100	0	0	the red colour one
79	12	9	red colour that one	39	21	39	the red colour that one

(11) "the one on the table"

82	table one	95	the table one
91	table that one	80	the table that one
95	on the table one	47	the on the table one
86	on the table that one	35	the on the table that one

(12) "the one that John bought"

97	John buy one	23	the John buy one
98	John buy that one	18	the John buy that one

APPENDIX 6: THE RESULTS (IN * / ? / √ JUDGEMENTS)

Part 1

(1) "John's apple"

√	John apple	*	the John apple
√	John's apple	*	the John's apple
√	John that apple	*	the John that apple
?	John's that apple	*	the John's that apple
?	apple John one	√	the apple John one
?	apple John's one	?	the apple John's one
√	apple John that one	?	the apple John that one
?	apple John's that one	*	the apple John's that one

(2) "(the) three apples"

√	three apple	√	the three apple
√	three apples	√	the three apples

(3) "this apple"

√	this apple	*	the this apple

(4) "the red apple"

√	red apple	√	the red apple
*	red that apple	*	the red that apple
?	red that one apple	*	the red that one apple
√	apple red one	√	the apple red one
?	apple red that one	?	the apple red that one
√	red colour apple	√	the red colour apple
?	red colour that apple	?	the red colour that apple
*	red colour that one apple	*	the red colour that one apple
√	apple red colour one	√	the apple red colour one
√	apple red colour that one	?	the apple red colour that one

(5) "the apple on the table"

√	table that apple	√	the table that apple
?	table that one apple	?	the table that one apple
?	apple table one	?	the apple table one
?	apple table that one	?	the apple table that one
√	on the table that apple	?	the on the table that apple
?	on the table that one apple	*	the on the table that one apple
√	apple on the table	√	the apple on the table
√	apple on the table one	√	the apple on the table one
√	apple on the table that one	√	the apple on the table that one

(6) "the apple that John bought"

√	John buy that apple	*	the John buy that apple
?	John buy that one apple	*	the John buy that one apple
?	apple John buy	√	the apple John buy
√	apple that John buy	√	the apple that John buy
√	apple John buy one	√	the apple John buy one
√	apple John buy that one	√	the apple John buy that one

Part 2

(7) "John's"

√	John's	*	the John's
√	John one	?	the John one
√	John's one	*	the John's one
√	John that one	*	the John that one
?	John's that one	*	the John's that one

(8) "three"

√	three	?	the three

(9) "this"

√	this	*	the this
√	this one	?	the this one

(10) "the red one"

√	red one	√	the red one
√	red that one	*	the red that one
√	red colour one	√	the red colour one
√	red colour that one	√	the red colour that one

(11) "the one on the table"

√	table one	√	the table one
√	table that one	√	the table that one
√	on the table one	√	the on the table one
√	on the table that one	?	the on the table that one

(12) "the one that John bought"

√	John buy one	?	the John buy one
√	John buy that one	?	the John buy that one

NOTES

[1]Singlish, sometimes also referred to as "Colloquial Singaporean English", is a variety or dialect of English used in various informal contexts in Singapore by speakers of all three major ethnic groups, Chinese, Malays and Indians. Occasionally, Singlish is considered to be something less than a full fledged language system. Thus, it has been characterized as a "non-native" variety (Platt and Weber 1980), a "semi-pidgin" (Valdman 1983:227), or simply as broken, incorrect or "adulterated" English (Thomas and Fam 1984:33). However, such characterizations are clearly at odds with the existence of a substantial population of native speakers of Singlish, by one estimate "nearly 70% of the current generation of children" in Singapore (Gupta 1994:27). Other scholars, while accepting Singlish as a bona fide variety or dialect, are primarily concerned with the processes of contact, borrowing and adaptation that contributed to its formation, proposing various labels such as "creoloid" (Platt 1975, 1977).

[2]The Questionnaire on Noun-Phrase Structure was made use of in a variety of ways in order to obtain data. For a large number of languages, I had the opportunity to elicit the relevant data in person, in which case the written version of the questionnaire became superfluous. However, for other languages, the questionnaire was e-mailed to native speakers, or to linguists with access to such speakers, in which case the written form of the questionnaire assumed greater importance. (For more details the reader is referred to Gil in preparation.)

[3]In (1) and (2), and in Section 3 below, the letters "t", "p", "n", "d", "c", "l", "e" form mnemonics for the corresponding semantically-based functions.

[4]For example, in (1/et), *apple that John bought* is a modification construction, and *that* a modification marker; similarly, in (2c), *red one* is a reification construction, and *one* a reification marker. The terminology adopted in this study is strictly semantic, eschewing more traditional syntactically-based terms such as *relative clause*, *relative pronoun*, *adjective*, *nominalizer*, and so forth. This is because semantic properties are readily accessible to introspection, whereas syntactic categories can only be established through rigorous syntactic analysis. In fact, one of the ultimate goals of this study is precisely to determine the syntactic categories to which semantically equivalent expressions may belong, in different languages. (For further discussion of these issues, see Gil to appear, in preparation.)

[5]Ideally, any study of a variety such as Singlish should rely heavily on spontaneous data culled from actual live language use. Such indeed is the approach that I have adopted elsewhere, in other studies of Singlish (cf. Gil 1994a, 1995c). Unfortunately, however, live Singlish usage is largely inaccessible to outsiders: in the almost three years that I lived in Singapore, I hardly had any informal contacts with Singaporeans, other than brief daily encounters with taxi drivers and hawker-centre vendors. Thus, elicitation has proven to be the only practical source of Singlish data.

[6]The key in (4) may strike some readers as surprisingly liberal, with rather low thresholds for "√" and "?" judgements. Some justification for these low thresholds is provided by the observation that, due to the basilectal nature of Singlish, and the prescriptivist bias exhibited by many subjects, judgements are often overly harsh, with speakers occasionally assigning "?" and even "*" to constructions that they themselves use. Further justification can be obtained by a "disjunctive" or "existential" reading of the data, to the effect that, say, a construction characterized as "√" is one that is judged to be grammatical by a significant minority of Singlish speakers — notwithstanding the fact that many other speakers judge it as ungrammatical.

[7]For some further discussion of (in)definiteness marking in Singlish, see Gil (1994b, 1995a,c).

[8]An extensive discussion of the sociolinguistic variables governing the occurrence of the plural suffix *-s* in Singlish is provided in Platt (1977) and Ho (1981), and summarized in Ho and Platt (1993:20-26). Some additional questionnaire data

concerning the category of plurality is also provided in Gil (1994b).

[9]For some relevant data from the substratum languages of Singlish, the reader is referred to the broader cross-linguistic study reported on in Gil (in preparation), in which some of the languages that are investigated include Hokkien, Cantonese, Singaporean Malay and Riau Indonesian.

[10]In addition to its dual role as reification cum modification marker, Singlish *one* is also used as a "sentence final particle" (see Gupta 1992a for discussion): this latter role would appear to be shared by Hokkien *e*^{24}, Teochew *kai*^{55}, Cantonese *ge*^{33} and Bazaar Malay *mia*, though not Singaporean Malay *yang*. In work in progress, I am attempting to develop a unified syntactic and semantic analysis for all of these variegated uses of Singlish *one*.

[11]However, whereas in Chinese and Bazaar Malay, modifiers are prenominal, and hence the modification marker occurs between the modifier and the thing expression, in Singlish the modifiers in question are postnominal, and therefore the modification marker occurs at the end of the construction. Accordingly, if the modification marker is characterized as a relative pronoun (as, for example, in Ho and Platt 1993:9), then this construction presents a counterexample to Downing's (1978:390) universal to the effect that in postnominal relative clauses, the relative pronoun always precedes the relative clause. Constructions resembling the Singlish would appear to be characteristic of a region transitional between head-final NPs such as in Chinese, and head-initial NPs such as in Malay: analogous constructions are attested also in Shan dialects of Thai (F.K. Lehmann, personal communication) and in Karen (Gil in preparation).

[12]The use of Singlish *one* as a construction marker may also be compared to that of the classifiers in Hokkien, Teochew and Cantonese. In terms of distribution, there are substantial differences. Thus, for possessor, colour, locative and event modifiers, Singlish *one* is both a modification marker and a reification marker, while the classifiers in Hokkien, Teochew and Cantonese are only modification markers (subject to a certain degree of idiolectal and cross-linguistic variation). Conversely, for numeral modifiers, Singlish *one* does not occur at all, whereas the classifiers in Hokkien, Teochew and Cantonese are used as modification markers and as reification

markers, in what is, of course, the prototypical use of classifiers. A further important difference is semantic. Whereas constructions with Singlish *one* are, as noted above, unmarked for number, constructions containing the classifiers in Hokkien, Teochew and Cantonese are, with the exception of those involving the numerals, marked as singular. Interestingly, however, the inherent singularity of classifiers is echoed by the singular character of Singlish *one* in its alternative use as a prenominal numeral and/or indefinite article.

[13]An interesting contrast is presented between the questionnaire data for the function of thing modified by colour, and some other data cited in Gil (1995a, to appear). Specifically, whereas the questionnaire results show that **red that apple* is ungrammatical and *?red colour that apple* of questionable grammaticality, in Gil (1995a, to appear) *expensive that house* is cited as grammatical, based on elicitation from a single native speaker. Subsequent elicitation from native speakers suggests that this is indeed a robust contrast, and that Singlish expressions denoting properties fall into two classes: those like *red*, which cannot occur as prenominal modifiers with *that*, and those resembling *expensive*, which can. As suggested by the results of the present questionnaire, the latter class of property expressions pattern together with possessors, locative expressions and event expressions, in their occurrence as prenominal modifiers with *that*.

[14]The use of Cantonese *dik*^{5} is restricted to formal registers; in particular, it is the "reading pronunciation" of the Chinese character corresponding to Mandarin *de*. According to Steve Matthews (personal communication), *dik*^{5} has a wider range of uses, not just as a modification marker but also as a reifier, thereby falling in line with Singlish *one* and its counterparts in other Chinese languages — Hokkien *e*^{24}, Teochew *kai*^{55}, Cantonese *ge*^{33}, as well as Mandarin *de*. However, the two speakers of Cantonese whom I had occasion to consult were unanimous that *dik*^{5} contrasts with *ge*^{33} in that it cannot occur as a reifier, ie. in constructions associated with functions in (2). At this stage, I can only speculate that these diverse judgements reflect different regional dialects associated with Matthews' Hong Kong speakers and my own Singaporean speakers respectively.

[15]Thus, for example, in the case of an event modifier, the Cantonese constituency is *[a*^{33}*-faay*^{55} *maai*^{13} *dik*^{5}*] [pi*$^{\wedge}$^{11}-

guo^{35}] ("apple that Ah Fai bought"), whereas the Singlish constituency is *[John buy] [that apple]* ("the apple that John bought"). Evidence for the latter constituency is provided by the insertability of the particle *ah*, a "filler" (Tongue 1974:83) or "optional interrogative tagmeme" (Killingley 1972:544) expressing "tentative" attitude and also serving to "punctuate" speech (Gupta 1992b:44-47). The following paradigm illustrates the insertability of *ah* into the NP *John buy that apple* "the apple that John bought":

(i) (a) * John *ah* buy that apple
(b) John buy *ah* that apple
(c) * John buy that *ah* apple

As shown by the above paradigm, *ah* can only be inserted at the constituent break between *[John buy]* and *[that apple]* .

[16]Actually, Hokkien *e^{24}* and Teochew *kai^{55}* enjoy a broader distribution than other classifiers in their respective languages; in fact, constructions containing these particular markers are associated with all of the twelve functions in (1) and (2). (From a traditional Mandarin-oriented perspective, *e^{24}* and *kai^{55}* are often characterized as "ambiguous" between the role of "classifier", corresponding to Mandarin *ge*, and the role of "genitive/relative" marker, corresponding to Mandarin *de*; however, I am aware of no evidence internal to either Hokkien or Teochew in support of such an ambiguity analysis.) Note how in the Singlish *that one* construction, *one* corresponds alternatively to a general marker such as Hokkien *e^{24}* and Teochew *kai^{55}* (as does the simple construction marker *one*), or to a classifier such as Hokkien *liap^{4}*, Teochew *liap^{5}*, and Cantonese *go^{33}* and *lap^{5}* (cf. footnote 12 above). Interestingly, an even closer parallel to the Singlish *that one* construction can be found in the geographically unrelated but typologically similar Kayah Li dialect of Karen, in which the corresponding construction marker is *nfi t, pl°*, literally "that one-CLASSIFIER".

[17]Again, as pointed out in footnote 11 above, the resulting construction with *that one* is cross-linguistically unusual, in that the modification marker occurs at the end of the construction, following the modifier.

[18]Once more, support for the above constituency is provided by the insertability of the particle *ah*. Taking the modifier to be the

event expression *John buy*, the following paradigm corresponds precisely to that in footnote 15 above:

(i) (a) * John *ah* buy that one
(b) John buy *ah* that one
(c) * John buy that *ah* one

As evidenced by the above paradigm, *ah* can only be inserted at the constituent break between *[John buy]* and *[that one]*; in particular, the ungrammaticality of (i/c) shows that the complex construction marker *that one* forms a closely bound constituent.

[19]The use of semantic maps to represent the range of meanings associated with various grammatical markers follows Anderson (1982), Croft, Shyldkroft and Kemmer (1987), Haspelmath (1993), and others.