# City University of Hong Kong LT4216 Advanced Topics in Linguistics

## Formal Semantic Analysis of Cantonese expressive adjective laap6saap3

### Group 6:

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#### 1. Introduction

For Cantonese speakers, it is not uncommon to hear the use of *laap6saap3* in daily conversation. In fact, *laap6saap3* can be treated as a noun, meaning 'rubbish' in Cantonese. For example:

a) ngo5 dam2 laap6saap3

I throw rubbish

'I throw rubbish away.'

However, *laap6saap3* can also be a Cantonese expressive adjective, describing the following noun(s). One example is shown below:

b) bou6 laap6saap3 din6si6 waai6 zo2

QUAN rubbish television break.down PAST

'The useless television broke down.'

At-issue meaning: The television broke down.

Secondary meaning: The television is useless.

In this report, the role of *laap6saap3* being an expressive adjective in Cantonese will be focused. We would like to investigate whether the secondary meaning arisen from *laap6saap3* conveys conventional implicature (CI) meaning, which is defined by Potts (2003). This report is structured as follows: Section 2 presents the empirical data which will be used throughout the report. Then, our hypothesis and predictions will be presented in Section 3. In Section 4, an analysis on the four properties of CI, namely lexicality, commitment, independence of 'what is said' and speaker-orientation, will be shown, in order to check if our hypothesis and predictions are correct. After that, Section 5 will present and analyze what *laap6saap3* could be, including conversational implicature, presupposition and at-issue entailment. We will then demonstrate how *laap6saap3* fits the category of multidimensional at-issue entailment in Section 6. Finally, Section 7 is a conclusion for our report.

#### 2. Empirical data

In this section, empirical data of *laap6saap3* is presented in order to maintain consistency in our report. We will use the following data as our main example throughout the report and prove whether our hypothesis is correct.

c) sou1saan1 zou6 fan6 laapsaap3 gung1fo3

Susan do DEF rubbish homework

'Susan does the useless homework.'

At-issue meaning: Susan does the homework.

Secondary meaning: The homework is useless.

#### 3. Proposal

Based on the usage of *laap6saap3* in daily conversation as well as the empirical data, our hypothesis and predictions are presented in this section.

We hypothesize that *laap6saap3* conveys CI meaning. There are two predictions based on the hypothesis:

- i) Laap6saap3 can be proved to have all four properties of CI defined by Potts (2003), namely
  - lexical / conventional,
  - commitment / entailment,
  - independence of 'what is said', and
  - speaker-orientation.
- ii) *Laap6saap3* does not give rise to other meanings, including conversational implicature, presupposition and at-issue entailment.

#### 4. Analysis

With reference to the hypothesis and predictions, an analysis on whether *laap6saap3* can meet the four properties of CI is demonstrated in this section.

#### 4.1. Lexical / Conventional

According to Potts (2003: 7), lexical property of a conventional implicature means that the meaning cannot be calculated from conversational maxims and the cooperative principle because the conventional meaning of the words the speaker chose influences the interpretation of a sentence. We can prove if *laap6saap3* induces a secondary meaning that is a CI by deleting the word *laap6saap3* in our example.

d) sou1saan1 zou6 fan6 gung1fo3

Susan do DEF homework

'Susan does the homework.'

By deleting the word *laap6saap3* in our example, the secondary meaning that 'the homework is useless' cannot be held and is gone. Only the at-issue meaning 'Susan does the homework' is left. Therefore, *laap6saap3* bears the conventional property of a CI.

#### 4.2. Commitment / Entailment

The second property of CI is commitment. This means the secondary meaning induced by CI cannot be cancelled, giving rise to entailments. We can check whether *laap6saap3* fits this property by adding a clause which is conflicting with the secondary meaning in our example.

e) #sou1saan1 zou6 fan6 laap6saap3 gung1fo3

Susan do DEF rubbish homework

'Susan does the useless homework,'

daan6 ngo6 gok3dak1 fan6 gung1fo3 jau5jung6
but I think DEF homework useful
'but I think the homework is useful.'

Meaning: #Susan does the useless homework, but I think the homework is useful.

By adding the clause 'but I think the homework is useful' which is contradictory to the secondary meaning 'the homework is useless' in the example, we would like to

see if the secondary meaning can be cancelled. However, the secondary meaning cannot be denied in our example, and this results in infelicity and absurdity. Hence, the secondary meaning of *laap6saap3* fits the commitment property of CI.

#### 4.3. Independence of 'what is said'

The next property of CI is that it is logically and compositionally independent of 'what is said', which is an at-issue entailment (Potts 2003: 9). This means that the truth values of the at-issue meaning and the CI meaning do not affect each other. We can test whether our example is a CI by making the at-issue meaning false and keeping the secondary meaning as true, and see if the sentence still makes sense.

f) sou1saan1 zou6 fan6 laap6saap3 gung1fo3 Susan does DEF rubbish homework

'Susan does the useless homework.'

Fact: Susan does not do the homework, the homework is useless.

In the above sentence, the truth value is <0,1>. The sentence still makes sense under the above situation: even though Susan does not do the homework, it does not change the fact that the homework is useless. It is also fine to alter the truth value of the sentence into <1,0>: Susan does the homework, even if the homework is not useless. It shows that the truth values of the at-issue meaning and secondary meaning do not affect each other in our example -- the secondary meaning induced by *laap6saap3* is independent of the at-issue meaning. Therefore, *laap6saap3* fits the third property of CI -- independence of 'what is said'.

#### 4.4. Speaker-orientation

As for speaker-orientation, the fourth property of CI, it denotes that the secondary meaning is undoubtedly from the speaker in view of entailment arisen from the commitment the speaker made with his/her chosen word(s).

g) #sou1saan1 gok3dak1 keoi5 zou6 fan6 laap6saap3 gung1fo3

Susan think she do DEF rubbish homework

'Susan thinks she does the useless homework.'

keoi5 gok3dak1 fan6 gung1fo3 jau5jung6

She think DEF homework useful

'She thinks the homework is useful.'

Meaning: #Susan thinks she does the useless homework. She thinks the homework is useful.

h) sou1saan1 gok3dak1 keoi5 zou6 fan6 laap6saap3 gung1fo3
Susan think she do DEF rubbish homework
'Susan thinks she does the useless homework.'

ngo5 gok3dak1 fan6 gung1fo3 jau5jung6

I think DEF homework useful

'I think the homework is useful.'

Meaning: Susan thinks she does the useless homework. I think the homework is useful.

When examining the examples above, the secondary meaning of *laap6saap3* is not speaker-oriented. In example (g), when an attitude verb with the subject 'Susan' is added, the meaning of *laap6saap3* is no longer speaker-oriented, but rather coming from Susan. We can further strengthen our argument by inserting the comment 'she thinks the homework is useful', which leads to conflict with the first clause, to show the infelicity.

However, in example (h), if the meaning of *laap6saap3* comes from Susan, it is acceptable for the speaker to say that 'the homework is useful' although Susan thinks it is useless. Therefore, the secondary meaning of our example does not fit 'speaker-orientation' property.

In accordance with our hypothesis, it is predicted that *laap6saap3* has four properties of CI. However, wrong prediction is made. Despite the fact that the secondary

meaning arisen from *laap6saap3* fits the first three properties of CI, namely lexical / conventional, commitment / entailment and independence of 'what is said', it does not fulfill the requirement that the secondary meaning should be speaker-oriented. Hence, *laap6saap3* does not convey CI meaning. Other possibilities should be taken into account to discover what meaning of *laap6saap3* gives rise to.

#### 5. Possibilities

In this section, several possibilities that the meaning of *laap6saap3* gives rise to will be examined in the order as follows: conversational implicature, presupposition and at-issue entailment.

#### **5.1.** Conversational implicature

If the secondary meaning of *laap6saap3* is conversational implicature, it should be deniable, context dependent and non-detachable.

For deniability, as proven in the commitment section 4.2, the meaning arisen from *laap6saap3* is not deniable, so it does not fit the property of conversational implicature.

With regard to the context-dependent property, its meaning will change whenever the context changes. However, in examples (i) and (j), as the meaning of useless comes from *laap6saap3*, the secondary meaning that 'the homework is useless' does not change no matter whether Susan does the homework or not. So, it cannot be context-dependent.

- i) sou1saan1 zou2soeng6 zou6 fan6 laap6saap3 gung1fo3

  Susan morning do DEF rubbish homework

  "Susan does the useless homework in the morning."
- j) sou1saan1 maan5soeng6 zou6 fan6 laap6saap3 gung1fo3
   Susan night do DEF rubbish homework
   "Susan does the useless homework at night."

Regarding non-detachability, the secondary meaning from *laap6saap3* will alter if there is a change in lexicon, just like the examples illustrated below. If *laap6saap3* changes to *puk1gaai1* which means frigging, the secondary meaning 'the homework is useless' will be lost even though the speaker has a negative attitude towards the homework for both *puk1gaai1* and *laap6saap3*. Hence, it does not fit the property.

- k) sou1saan1 zou6 fan6 laap6saap3 gung1fo3
  Susan do DEF rubbish homework
  'Susan does the useless homework.'
- 1) sou1saan1 zou6 fan6 puk1gaai1 gung1fo3
  Susan do DEF frigging homework
  'Susan does the frigging homework.'

Therefore, since the secondary meaning does not have the properties of conversational implicature, namely deniability, context dependence and non-detachability, the meaning of *laap6saap3* cannot be categorised as conversational implicature. In the following section, the likelihood of identifying the secondary meaning as presupposition will be discussed.

#### **5.2.** Presupposition

After proving *laap6saap3* does not give rise to conversational implicature, in this section, the possibility of whether the secondary meaning of the example is presupposition will be considered in view of the properties of deniability, backgrounding and dependence of truth value.

As mentioned in previous section, since the meaning that *laap6saap3* conveyed does not fit the property of deniability, it fails to have one of the properties of presupposition.

Besides, presupposition is supposed to be backgrounded, which denotes that the secondary meaning is about the knowledge shared between the speaker and the hearer.

m) fan6 gung1fo3 hai6 laap6saap3

DEF homework is rubbish

"The homework is useless."

#soulsaanl zou6 fan6 laap6saap3 gunglfo3

Susan do DEF rubbish homework

"Susan does the useless homework."

Meaning: #The homework is useless. Susan does the useless homework.

As example (m) shows, if the speaker says 'the homework is useless' and 'Susan does the useless homework', it sounds infelicitous because the meaning of *laap6saap3*, which repeats the meaning of useless in the second clause, will be redundant. Thus, it is shown to be anti-backgrounded, instead of backgrounded.

What is more, presupposition should be dependent of the truth value of the at-issue meaning. However, the meaning of *laap6saap3* is independent of truth value of at-issue instead, as illustrated in section 4.3 example (f). Even if 'Susan does the homework' is false, 'the homework is useless' can still be true; vice versa. The meaning of useless is still maintained.

Therefore, without the properties of presupposition, which are deniability, backgrounding and dependence of truth value, *laap6saap3* does not give rise to presupposition as well. The possibility that the secondary meaning of *laap6saap3* belongs to the category of entailment should be looked upon. The next section will demonstrate the probability that meaning of *laap6saap3* gives rise to entailment.

#### **5.3.** At-issue entailment

In the previous sections, we have shown that the secondary meaning arisen from laap6saap3 is neither a conversational implicature nor a presupposition. This section compares laap6saap3 with the third possible category, at-issue entailment. To be an at-issue entailment, laap6saap3 needs to fulfill the following four properties: non-deniability, not necessarily speaker-oriented, unable to survive presupposition plugs, and unable to survive presupposition holes.

As proven in Section 4.2, the secondary meaning induced by *laap6saap3* is not deniable. Thus, it fits the first property of at-issue entailment.

For the second property, *laap6saap3* satisfies the requirement of at-issue entailment of not necessarily speaker-oriented, as proven in Section 4.4.

The third property of at-issue entailment is unable to survive presupposition plugs. We use the following examples to check if the secondary meaning of *laap6saap3* can survive them:

- n) ma5lei6: sou1saan1 zou6 fan6 laap6saap3 gung1fo3

  Mary: Susan do DEF rubbish homework

  'Mary: Susan does the useless homework.'
- soulsaanl: ma5lei6 waa6 ngo5 laap6saap3 gung1fo3 o)z.0u6 fan6 Ι DEF rubbish Susan: Mary sav do homework 'Susan: Mary said I do the useless homework.'

For example (n), the secondary meaning of *laap6saap3* comes from the speaker of the sentence, that is Mary. As for example (o), however, the secondary meaning of *laap6saap3* comes from the subject of the utterance, that is Mary, instead of the speaker of the sentence. Since the secondary meaning of *laap6saap3* can come from either the speaker or the subject of the sentence, it is not necessarily conveyed by the speaker. Therefore, the secondary meaning induced by *laap6saap3* can escape presupposition plugs.

The last property of at-issue entailment is unable to survive presupposition holes, including negation, question, modalization, and conditionalization. The following examples show if the secondary meaning of *laap6saap3* can survive them:

#### *p*) (Negation)

sou1saan ng3 zou6 fan6 laap6saap3 gung1fo3

Susan not do DEF rubbish homework

'Susan does not do the useless homework.'

#### q) (Question)

sou1saan1 zou6 fan6 laap6saap3 gung1fo3

Susan do DEF rubbish homework

'Does Susan do the useless homework?'

#### r) (Modalization)

sou1saan1 ho2nang4 zou6 fan6 laap6saap3 gung1fo3

Susan might do DEF rubbish homework

'Susan might do the useless homework.'

#### s) (Conditionalization)

yu4guo2 sou1saan1 zou6 fan6 laap6saap3 gung1fo3

If Susan do DEF rubbish homework,

keoi5 wui5 long6fai3 si4gan3 she will waste time

From examples (p, q, r and s), the secondary meaning that 'the homework is useless' can be maintained. Thus, *laap6saap3* can escape presupposition holes.

In sum, at-issue entailment needs to be non-deniable, not necessarily speaker-oriented, unable to survive presupposition plugs, and unable to survive presupposition holes. From what we have analyzed, it is found that *laap6saap3* only fits three out of the four properties of an at-issue entailment, that is, it does not fit the property of not being able to escape presupposition holes. In what follows, we compare *laap6saap3* with at-issue entailment in the sense of dimensionality.

#### 6. Multidimensional at-issue entailment

Unlike other possible categories, *laap6saap3* fits three properties of at-issue entailment including: non-deniability, not necessarily speaker-oriented and unable to survive plugs. However, *laap6saap3* escapes presupposition holes, violating one of the properties of at-issue

<sup>&#</sup>x27;If Susan does the useless homework, she will waste time.'

entailment. Due to this special case, dimensionality should be considered in order to find out what kind of meaning *laap6saap3* proposes.

For normal at-issue entailment, it should be trapped under presupposition holes, which means that it should be uni-dimensional. Consider the following examples:

- t) sou1saan1 tai2zo2 tou3 sai1fong1 din6jing2
  Susan watch.PAST QUAN western movie
  'Susan watched a western movie.'
- u) sou1saan1 ho2nang4 tai2zo2 tou3 sai1fong1 din6jing2
  Susan might watch.PAST QUAN western movie
  'Susan might watch a western movie.'

The at-issue adjective 'western' does not convey any secondary meaning. Only one at-issue meaning 'Susan watched a western movie' is conveyed, which is why it does not escape presupposition holes. This is then different from *laap6saap3*.

We therefore propose *laap6saap3* may give rise to a special at-issue meaning in the sense of multi-dimensionality. Consider our previous example:

c) sou1saan1 zou6 fan6 laap6saap3 gung1fo3

Susan do DEF rubbish homework

'Susan does the useless homework.'

In the sense of multi-dimensionality, two at-issue meanings are conveyed in our example, firstly, 'Susan does the homework.' and secondly, 'The homework is useless.' Unlike normal at-issue entailment with uni-dimensional meaning, *laap6saap3* gives rise to two at-issue meanings, instead of the combination of one at-issue meaning and one secondary meaning. The two at-issue meanings enable *laap6saap3* to escape presupposition holes yet keep other properties of at-issue entailments. Further can be proved in the following semantic parsetree:

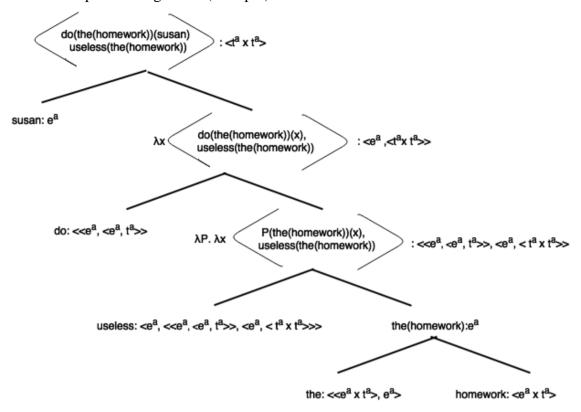


Figure 1: A semantic parsetree of 'Susan does the useless homework.'

In the above, laap6saap3 (useless) is of type  $<e^a$ ,  $<<e^a$ ,  $<e^a$ ,  $<e^$ 

#### 7. Conclusion

In conclusion, *laap6saap3* does not give rise to CI meaning which contradicts our hypothesis. According to the four properties of CI, *laap6saap3* is lexical / conventional, it is an entailment and is independent of 'what is said'. However, it is not necessarily speaker-oriented, which proves that *laap6saap3* does not convey CI meaning. The wrong prediction comes from the misconception that the two meanings generated by *laap6saap3* is a pair of CI and at-issue meanings rather than two at-issue meanings. While comparing *laap6saap3* with other possible kinds of meaning, it has most of the features of at-issue entailment but violates the feature of the inability to escape presupposition holes. We therefore conclude that *laap6saap3* gives rise to multi-dimensional at-issue entailment. To further enrich our research in the future, we can consider placing *laap6saap3* in different positions of a sentence and see

whether it will keep on producing two at-issue meanings or other possible secondary meanings.

#### Reference

Potts, Christopher. 2003. *The Logic of Conventional Implicatures*: UC Santa Cruz dissertation.