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Evidentiality, Epistemic Modality, and Mirativity:

The Case of Cantonese Utterance Particles

Ge3, Laak3, and Lo1

Ka Fai Law

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

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ABSTRACT

Evidentiality, Epistemic Modality, and Mirativity: The Case of Cantonese Utterance Particles *Ge3*, *Laak3*, and *Lo1*

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This thesis examines a set of three utterance particles—*ge3*, *laak3*, and *lo1*—in Hong Kong Cantonese in terms of evidentiality, epistemic modality, and mirativity. Cantonese utterance particles have long been studied; however, close investigation of evidentiality and mirativity on a small set of particles is relatively rare. Previous accounts claim that *ge3* and *laak3* convey certainty. On the other hand, linguists also claim that the use of the utterance particle *lo1* assumes a high level of knowledge from a hearer. This thesis has two main purposes: to untangle the differences between the utterance particles *ge3* and *laak3* in terms of epistemic modality and evidentiality and to reveal the mirative meanings of the utterance particle *lo1*. I postulate that the utterance particle *ge3* conveys both epistemic modality and evidentiality. For epistemic modality, *ge3* concerns a speaker's knowledge. The evidential meaning—access to prior knowledge—is realized through implicature. This pragmatic reading is highly context dependent. In contrast, the utterance particle *laak3* conveys only epistemic modality which concerns a state of affairs and signifies a change of state. Lastly, this study also reveals that the utterance particle *lo1* has mirative values of sudden realization and counterexpectation under certain conversational contexts.

Keywords: evidentiality, epistemic modality, mirativity, Cantonese, utterance particles, final particles, sentence final particles, discourse particles, certainty, implicature

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LIST OF ABBREVIATIONS

ADJ	adjectival marker
ADV	adverbial marker
CL	noun classifier
CAR	cardinal marker
CONT	continuous aspect
DEG	degree expression
DEL	delimitative aspect
EXP	experiential aspect
HAB	habitual aspect
INTJ	interjection
LP	linking particle
NEG	negation marker
PFV	perfective aspect
PL	plural
POSS	possessive marker
PROG	progressive aspect
PRT	particle
UP	utterance particle

Chapter 1

Introduction

Cantonese has a rich inventory of utterance particles¹. These particles are sometimes described as final particles or sentence final particles, and they generally occur at the end of utterances and are commonly found in daily conversations. Linguists have discovered a range of 30 to 200 utterance particles (Yau 1965 and Kwok 1984). This range depends on a total of individual utterance particles or a total of individual and clustered utterance particles. Some utterance particles can also be used with other particles as clustered particles. Cantonese utterance particles have long been studied in terms of their semantic and pragmatic meanings, syntactic distributions, and phonological features. Some scholars investigate a large set of utterance particles (Yau *ibid*, Kwok *ibid*, and Fung 2000) and others focus on a small set of utterance particles (Bourgerie 1987, Luke 1990, Chan 1996, and Leung 2009 and 2013). These scholars employ different linguistic theoretic approaches to address the phenomenon of the utterance particles. Because the particles are generally investigated collectively, close analysis on some utterance particles is still needed. For example, the utterance particles *ge3* and *laak3* are said to convey a speaker's epistemic attitude (or certainty). Distinctions between the two particles in terms of epistemic modality remains unresolved.

On the other hand, the study of evidentiality and mirativity as grammatical categories in languages throughout the world has been a heated subject in recent years. Evidentiality, in general, refers to a speaker's source of knowledge. Sensory experience (such as vision), hearsay, or reported speech are types of sources of knowledge (Aikhenvald 2004). Researches on evidentiality mainly focuses on South American languages, African languages, or European

¹ By definition, particles are linguistic units which cannot stand individually. They are always ranged between phonemes and morphemes without a fixed, concrete meaning. They must be attached to a word or a phrase to impart meaning.

languages. Mirativity, in contrast, concerns a speaker's unprepared psychological state toward the new information (Delancey 1997). Studies of evidentiality and mirativity in the Chinese language are relatively rare. Among the Cantonese utterance particles, only *wo3* and *wo5* have been analyzed and confirmed to convey evidential and mirative meaning (Matthews 1998 and Leung 2011). Further investigation on other utterance particles is therefore necessary.

In this study, I examine three utterance particles, namely—*ge3*, *laak3* (or *lak3*), and *lo1*²—found in Hong Kong Cantonese in terms of their evidential, epistemic, and mirative meaning. Several reasons exist to analyze these particles: 1) These particles are commonly used in daily conversations; 2) These particles can be found in everyday speech; 3) Although *ge3* and *laak3* are said to convey certainty (Kwok 1984, Matthew and Yip 2011), distinctions between the particles in terms of certainty have not been discussed; 4) These particles are rarely studied individually due to few occurrences in the datasets of the previous studies.

This thesis has two main purposes: to untangle the differences between the utterance particles *ge3* and *laak3* in terms of epistemic modality and evidentiality and to reveal the mirative meanings of the utterance particle *lo1*.

The Term “Utterance particle”

It has been controversial and is true that there is no fixed term for Cantonese particles which occur at the final position of sentences. The majority of linguists refer to them as sentence final particles (SFP) (Law 1990, Chan 1996, and Leung 2009, to name a few). Some use the term “final particle” or FP (Fung 2000 and Yiu 2001). Bourgerie uses the terms “discourse particle” and “modal particle” (1987, 1996, and 1998). Luke (1990) and Leung (2013), on the other hand, adopt the term “utterance particle.” Most linguists prefer to use “sentence final particle” because

² To keep this study manageable in scope, I will focus on monosyllabic particles only. Clustered particles will not be discussed and analyzed.

the particles can be commonly found at the end of a sentence. Despite the terminology, the particles can also occur at the final position of phrases, clauses, “free-standing words”, and “sentence fragments” (Luke 1990 pp.6-10 and Matthews and Yips 2011 p.390). Therefore, I will adopt the term “utterance particle” in this present study. Although terms such as “sentence final particle” or “final particle” may be used in the discussion of previous literature in Chapter 2, they all refer to “utterance particle.”

Jyutping and Yale Romanization Systems

Unlike English (or other languages) which uses alphabetical systems, Cantonese is, in general, represented by Chinese characters. In order for readers who are not familiar with Chinese characters to understand, I will adopt a romanization system in this present study. Two Cantonese romanization systems, Jyutping and Yale, are commonly used. Jyutping was developed by the Linguistic Society of Hong Kong (Tang *et al.* 2002) whereas the Yale system was developed by Parker Huang and Gerald Kok, and this system is commonly used in Cantonese courses and textbooks (Bourgerie, *et al.* 2002 and Baker and Ho 2016). However, in recent years more scholars have adopted the Jyutping system in linguistic research. In order to maintain consistency with the data set used in this study, I will therefore adopt the Jyutping system in the rest of the discussions, except for the examples excerpted from previous studies. For reference purposes, a conversion table of Yale, IPA, and Jyutping systems extracted from Matthews and Yips’ (2011 pp.461-463) Cantonese grammar book is available in the Appendix A of this paper.

The present paper will proceed as follows: In Chapter 2, I will provide a survey of previous studies of Cantonese utterance particles *ge3*, *laak3*, and *lo1*, evidentiality, epistemic modality, and mirativity. In Chapter 3, I will discuss methodologies and the data sets used in this

study. In Chapters 4 through 6, I will analyze the utterance particles *ge3*, *laak3*, and *lol* in terms of their evidential, epistemic, and mirative meaning. Finally, I will then provide a conclusion in Chapter 7.

Chapter 2

Literature review

In this Chapter, I will provide a survey of previous literature in terms of the topics of Cantonese utterance particles, evidentiality, epistemic modality, and mirativity.

Studies of Cantonese Utterance Particles

Cantonese utterance particles have long been studied in distinct linguistic aspects with various approaches attempting to explain the nature of the particles. Law (1990) focuses on the relationship between syntax and phonology of utterance particles. Chan (1986) focuses on gender-marked speech in Cantonese in terms of the use of utterance particles *Je* and *Jek*. Wakefield (2010, 2011, 2012, and 2016) studies English equivalents of Cantonese utterance particles. Many scholars have focused on the semantics and pragmatics of utterance particles (Yau 1965 and 1980, Kwok 1984, Bourgerie 1986, Luke 1990, and Fung 2000). Studies on Cantonese utterance particles can also be classified as two groups: Studies on a large set of particles and studies on a small set of particles. These will be discussed in the following section.

Studies on a Large Set of Utterance Particles.

Kwok (1984) wrote an important account categorizing nearly thirty utterance particles in her data. Some of these particles can be combined to be a two-particle form, for example *gaa3laa3* or a three-particle form, *gaa3laa3wo3* (pp.8-11). In addition to the identification of the particles, Kwok was also able to identify the distribution of the utterance particles. She shows that these particles can be found in declarative, interrogative, and imperative sentences. Kwok also analyzed the semantic meanings of each particle. However, her treatment on the meanings of utterance particles is rather simple. For example, she claims that the particle *dze1* has a corresponding English meaning “only” or “only because”. She later adds “[it] may be used to

convey the idea of reassurance, or encouragement” (pp.53-55). Although Kwok provides comprehensive meanings in different discourse contexts, no contextual information is provided. Contextual elements may also affect the meaning of an utterance particle.

On the other hand, Fung (2000) provides a comprehensive analysis of Cantonese utterance particles in terms of semantic meanings and pragmatic effects. Her data is based on twelve half-hour episodes of a Cantonese TV series, *Kaleidoscope*, produced in China in the 1980s. She classifies twenty-five utterance particles into three different family groups Z-, L-, and G- (these letters refer to the initial consonant of the utterance particles). The particles inside the family group Z-, L-, and G- share the same initial consonant. Fung proposes that each member of a family group shares the same main feature: As for the Z- family, the primary meaning is restrictiveness. The L- group primarily expresses realization of state. And the G- family conveys the meaning of provided situation, focus, and deixis. The main feature of each group may have pragmatic effects, such as contrasting or certainty.

Sybesma and Li (2007) build on Fung’s framework and extend it to another level. They dissect sentence final particles into smaller units (onset, rhymes, tones, and coda) and investigate whether there are semantic differences. As a result, they propose 13 minimal semantic units. Five initials (*g, l, m, n/l, z*), four rhymes (*aa, e, o, aa4*), one coda (*k*), and three tones (1, 4, and 5). These units themselves encode a meaning. For example, the initial *l* indicates realization of state and the rhyme *o* denotes noteworthiness. For Sybesma and Li, then, Cantonese sentence final particles are composed of such minimal semantic units.

Studies on a Small Set of Utterance Particles.

Luke (1990) examines three Cantonese utterance particles (*la1, lo1, and wo3*) in terms of their distribution in various utterances and provides an overall function for each particle. He

utilizes conversation analysis to examine the nature of the utterance particles. In light of Luke's descriptions, *la1* is commonly used in, for example, requests, requiring a response, and expressing agreement. The overall functions of *lo1* are to confirm, to suggest, and to provide advice. *wo3* has properties of reporting and reminding, to name a few.

Bourgerie (1987) focuses on a set of four utterance particles (GE/GA, WO, ME, and GWA) in his study and proposes their main function is uncertainty. In addition to that he also demonstrates other functions of these particles. He employs the Speech Acts framework and a discourse framework to explain the phenomenon of utterance particles. He stresses that the main function of the set of the particles commonly has the force of uncertainty.

Yiu (2001) analyzes a set of three final particles LEI, ZYU, and LAA in terms of their aspectual meaning. She claims that the particle LEI has a perfective aspect whereas ZYU and LAA have an imperfective, continuative, and inchoative aspect, respectively. In other words, LEI expresses a completed situation; ZYU signals an on-going situation which will end soon; and LAA conveys a change of state.

Leung (2011, 2013, and 2016) focuses on a range of five utterance particles *laa1*, *wo3*, *gaa3*, *laa3*, and *zaa3*. She employs Natural Semantic Metalanguage (NSM)³, a theory developed by Anna Wierzbicka (1996), and aims to reveal the "core meaning" or "invariant meaning" of the particles. She suggests that each of the utterance particles has its own unchanging meaning.

To the best of my knowledge, a close investigation on utterance particles *ge3* and *laak3* in terms of the sense of certainty has not been conducted. Also, despite the prior descriptions, no studies have discussed the mirative meaning of the utterance particle *lo1*. I will provide a brief survey of evidentiality, epistemic modality, and mirativity in the next section.

³ Since this present paper does not employ NSM approach, I will neither discuss nor provide insight toward the theory.

Evidentiality and Epistemic Modality

The term “evidential” was used as early as 1947 by Boas (1947 p.237) when he studied the grammar of Kwakiutl, an Indian language. Since then, the term has been widely used in the study of evidentiality in languages throughout the world. Evidentiality is said to be the source of knowledge of an utterance which may be expressed by modal markers, suffixes, adverbs, and so forth. Unlike the field of law, linguistic evidentiality has nothing to do with proving whether something is true or not. Linguistic evidentiality concerns the source of knowledge of utterances and how they are expressed (Aikhenvald 2004 pp.3-5). Types of knowledge sources are, for example, sensory experience, hearsay, and inference.

Studies of evidentiality as a grammatical category in distinct languages all around the world has been a heated subject in the past several decades. To name a few, languages include, but not limited to, Quechua (or Quichua used in Ecuador) (Floyd 1999, Howard 2012 and 2018, Nuckolls 2012 and 2018, Nuckolls and Michael 2012), Nanti (Michael 2006 and 2012), Turkish (Johanson 2018), Japanese (Aoki 1986, Narrog and Yang 2018), Korean (Kwon 2011, Sohn 2018), Tibetan (DeLancy 1986 and 2018) Mongolian (Brosig and Skribnik 2018) as well as African languages such as Shilluk and Luwo (Storch 2018) have been well studied in terms of evidential systems.

While evidentiality deals with the source of knowledge, epistemic modality refers to the degree of the speaker’s commitment, or in other terms attitude, validation, evaluation, and reliability (Chafe 1986, Palmer 1986 p.51, and Mushin 2001). The relationship between evidentiality and epistemic modality has been an ongoing debate for decades. The debate can be divided into two groups of believers: (1) those who believe both evidentiality and epistemic modality should be classified into the same category (broad sense) and (2) those who argue both

categories should be regarded as independent and distinct (narrow sense)⁴. I will summarize both viewpoints in the following section.

Evidentiality and Epistemic Modality as a Same Category.

Chafe's (1986) account studies evidentiality in English conversation and academic writing. In his study, he argues that some expressions in English embed both evidentials and epistemic sense. He suggests a broad interpretation of evidentiality. This is to say that knowledge can be acquired through different modes (belief, induction, hearsay, and deduction, according to Chafe). And these modes, in the meantime, can also be evaluated into different levels of reliability (or commitment). This can be seen in the following English expressions extracted from Chafe's account.

- (a) I hear her taking a shower.
- (b) He sounds like he's mad.

In (a), the speaker acquired the knowledge "taking a shower" through the speaker's sensory experience "hear" and had high level of certainty being expressed. Contrary to (a), although the speaker in (b) also obtained the knowledge "he's mad" through direct sensory experience, the expression "sounds like" conveys a somewhat uncertain sense. Therefore (b) has a low level of commitment or is "less reliable" in Chafe's term. These examples prove Chafe's claim that evidentials and epistemic sense can be overlapping in certain languages.

Palmer (1986, pp.51-95) has a similar perspective with Chafe's approach. He claims that evidentials may also reflect speakers' attitude of their knowledge. He suggests a model of epistemic modality which has two subcategories: evidentials and judgements. In light of his classifications, different types of knowledge source (sensory experience, hearsay, etc.) fall under evidentials. A speaker's attitude or opinion is regarded as judgements. In addition to these

⁴ The first type of believers is called "conflationist" and "non-conflationist" for the second type under Kwon's (2011) terms.

subcategories, judgements are divided into two further subcategories: speculation and deduction. Although he gives examples showing that some languages (for example, Inga and German) overlap both evidentials and judgements, he also admits that there are languages that only embed either judgements (for example, English) or evidentials (for example, Tuyuca).

Similarly, Mushin (2001) argues that analyses of evidentiality in terms of source of knowledge is valid only in those languages which have developed a rich morphological evidential system. However, this system is only within a small pool of languages. There are more languages that do not have such a developed evidential system, according to her. Evidentials in Balkan Slavic languages such as Macedonian and Bulgarian are said to convey both knowledge source and speakers' commitment. In addition to that, Mushin also points out that although direct evidentials may imply a speaker's higher degree of commitment, inferential evidentials such as English *must* or *might* are different in the level of a speaker's commitment. In the sentence "You must/might have hit me", the inferential modal *must* has a high level of commitment whereas *might* has a low degree of commitment. Another example she provides is the conjecture marker - *chi* in Quechua languages in Peru which marks not only the speaker's inferential attitude, but also the degree of commitment (p.23). In this case, it is difficult to determine whether evidentiality should be considered as epistemic modality or vice versa. Therefore, the boundary between evidentiality and epistemic modality is quite fuzzy from this point of view. For a narrow definition of evidentiality, the inferential meanings in English and Quechua may be thought of as outside of its scope. Thus, in order to resolve the fuzziness of the distinctions, she suggests that evidentiality should be categorized under the domain of epistemic modality.

Although the arguments above are relatively reasonable and understandable with respect to the relationship between evidentiality and epistemic modality, they are somewhat

contradictory. As Kwon (2011) puts it, they seem to acknowledge that “there exist two separate categories” (p.202). Next, I will discuss another proposal within this debate.

Evidentiality and Epistemic Modality as Independent.

Contrary to the stance in the previous subsection, some linguists claim that evidentials and epistemic modality should be regarded as two separate grammatical categories. Supporters in this view are, for example, de Haan (1999), Floyd (1999), Aikhenvald (2004), and Michael (2006)

In his study, de Haan’s (1999) main purpose is to demonstrate there is no relationship between evidentiality and epistemic modality. He disagrees with the idea of categorizing evidentiality under the epistemic domain and attempts to differentiate the two notions. In his viewpoint, both notions differ in the sense of semantic meaning and syntactic structure, the true value, and the origins. In terms of semantic difference, he takes English *must* and Dutch *moeten* as examples that *must* is always evaluative while *moeten* embeds both epistemic modality and evidentiality (by the means of conversational implicature). For syntactic difference, grammaticalized evidentials are outside the scope of negation as in Maricopa (pp.12-13). For the true value of evidential sentences, he argues that some languages use evidentials to purely convey the types of evidence. Such evidentials do not encode speaker’s attitude. This can be seen in Tuyuca (pp.14-15). Lastly in his account, de Haan argues that the origins of evidentiality and epistemic modality are distinct. Evidentials can be derived from modal morphemes, tense, aspect, and verbs with evidential meanings whereas epistemic modality is derived from, for example, “ability verbs” (pp.18-25). As a matter of fact, de Haan has justified the necessity of distinguishing both evidentiality and epistemic modality. They are indeed two different categories.

Likewise, Aikhenvald (2004) advocates the distinctiveness of both notions. She systematically classifies various types of evidential systems among five hundred languages around the world. She insists that evidentiality be distinguished from epistemic modality. According to her, evidentiality conveys only source of information in certain languages (for example, Jarawara and Cherokee). It does not necessarily embed epistemic attitude, that is level of reliability, commitment, or validation. She also argues that, for some languages, evidentiality serves as a primary meaning of a linguistic item. This is what she means by “true” evidentiality. Despite that, epistemic meaning may be encoded in evidential markers through “extension”. This is to say that an evidential marker may have epistemic meaning in certain conversational contexts, but it does not affect the primary function of the marker.

In fact, there are more scholars who are in favor of the distinction between evidentiality and epistemic modality. Floyd views both notions as separate (1999, pp.15-16). Michael (2006) follows Aikhenvald’s perspective in his study of Nanti. He explicitly states that evidentiality is the marking of source of knowledge. Nuckolls (2018) also differentiates evidentiality from epistemic modality in Pastaza Quichua evidential markers *-mi* and *-shi*. She states that epistemic modality conveys “a confident assertion” (p.221). Furthermore, Hanks (2018) classifies source of knowledge into three subcategories: modes of access to information, epistemic modality, and warrant for knowledge. Modes of access refers to how a speaker gains the evidence; epistemic modality denotes a speaker’s attitude; and warrant for knowledge relates to speaker responsibility (this category will not be covered in the present study). He explicitly states that “the three (subcategories) are independent” which further implies evidentiality and epistemic modality as two separate notions (p.6).

The two viewpoints regarding the relationship between evidentiality and epistemic modality discussed above have their own supporting evidence. It is difficult to assert which stance is the most accurate one because distinct languages have their own unique nature. For my stance toward the debate, I have no intention to suggest either side. Instead, I would take them language by language. The primary key point in the study of evidentiality and epistemic modality is to identify the predominant nature of a linguistic item of a language. I shall also clarify here my stance toward the general concept of evidentiality and epistemic modality. In this particular study, I will follow Hank's classification of source of knowledge in his account. A copy of the table for source of knowledge extracted from his foreword can be found in the Appendix B of this study. In other words, I will regard evidentiality as access to knowledge whereas epistemic modality as speaker's commitment. I will discuss these more in Chapter 4 and 5.

Mirativity

Another heated topic other than evidentiality is the grammatical category—mirativity. It generally refers to the marking of speaker's unprepared, surprised, and unexpected mind toward new information or knowledge. This phenomenon has also been called "admirative" (Friedman 1986) or other descriptions (see details in DeLancy's (1999) account). In his work, DeLancy adopts the term "mirative" and demonstrates the phenomenon in a wide range of languages. According to his observation, this mirative phenomenon is generally identified in statements such as inference, direct experience, and hearsay. For example, the final particle *lǒ* in Hare can convey not only the inference and hearsay meanings, but also the reading of addresser's surprise (pp. 38-41). Other language examples he provides are Turkish, Sunwar, Tibetan, and Korean.

The main purpose of his work is to propose that mirativity should be regarded as an independent grammatical category in a range of languages.

Aikhenvald (2012) builds on DeLancy's proposal of mirativity and further categorizes distinct mirative values. Sudden realization, surprise, unprepared mind, counterexpectation, and new information are under the domain of mirativity. While Delancy argues that mirativity is related to evidentiality, Aikhenvald claims that mirativity is different from evidentiality "in their semantics, use, and occurrence with other categories" (p.474). Despite that, her work further confirms DeLancy's proposal that mirativity deserves to be recognized as an independent grammatical distinction. Next will be a survey of literature on evidentiality and mirativity in Chinese.

Prior Studies of Evidentiality and Mirativity in the Chinese language

Although evidentiality and mirativity in different languages have been well studied, studies of evidentiality and mirativity in the Chinese language, especially in utterance particles, are relatively rare. In the following, I will summarize several works in Chinese in terms of evidentiality and mirativity.

Mandarin

Hu (1994 and 1995) is one of the pioneers who introduced the concept of evidentiality to the field of Chinese linguistics. He illustrates the background of evidentiality and applies Chafe's framework to Chinese and concludes that Chafe's theory is basically applicable to Mandarin Chinese, which has a number of means to denote evidentiality. Zhang (1997) confirms that Mandarin has three main ways to express evidentiality: parenthetical phrases, adverbs, and sentence final particles. According to him, the concept of evidentiality has provided a way to explain the role of a sentence final particle *de* in Mandarin, which conveys certainty. Li et al.

(1998) confirms *de* as an evidential marker in their account. Zhang and Yu (2003) further investigate evidentiality in parenthetical phrases in Mandarin and illustrate that such phrases may denote quotative, hearsay, inference, or report. They also believe that parenthetical phrases can be categorized into different levels of reliability. Zhu (2006) applies Aikhenvald's framework to Mandarin and confirms that evidentiality in Mandarin can be categorized into eyewitness and non-eyewitness. Liu (2012) provides a short overview of evidentiality in Mandarin Chinese. According to her, evidentiality in Mandarin can be denoted in different grammatical categories, such as verbs, adverbs, nouns, and modal particles. In light of the accounts above, no other sentence final particles in Mandarin have been studied in terms of evidentiality, except the sentence final particle *de*.

Cantonese

Two linguists investigate evidentiality and mirativity in Cantonese utterance particles. Matthews (1988) studies Cantonese utterance particles *wo3*, *wo4*, and *wo5* in terms of their functions of evidentiality and mirativity. He concludes that the utterance particle *wo5* has an evidential meaning of hearsay while *wo3* has a mirative meaning of denoting unprepared, unexpected, or surprised information. According to him, particle *wo4* also has a mirative meaning. Similar to Matthews, Leung (2011) also studies the utterance particles *wo3* and *wo5* (but not *wo4*) in terms of evidentiality and mirativity. He also adds subjectivity to explain the distinctions between *wo3* and *wo5*. He believes that a statement generally carries the speaker's subjective attitude. Leung agrees that the main function of the particle *wo5* is hearsay which is a quotative marker while the particle *wo3* displays mirative meanings (surprise and unexpectedness) and also hearsay. Both particles encode hearsay. In his point of view, *wo5*

purely reports someone's speech. In contrast, *wo3* expresses someone's speech with the speaker's subjective interpretation. Therefore, *wo5* is distinct from *wo3*.

Based on the accounts of Matthew and Leung, the utterance particle *wo5* can be regarded as a "pure" evidential particle which conveys only hearsay. The nature of this particle does not encode speaker's attitude. The only function is to inform how the speaker gained the knowledge. Their studies also confirm that *wo3* conveys a mirative reading which denotes unprepared, unexpected, or surprised information. Surprisingly, besides *wo5* and *wo3*, no other utterance particles (recall that there are an estimate 30 individual utterance particles in Cantonese) have been analyzed and studied in terms of evidentiality and mirativity. Therefore, one of the purposes of this present study is to provide more evidence of how evidentiality and mirativity function in other utterance particles (*ge3* and *lo1* in Chapter 4 and 6) in Cantonese. I will discuss the methodology and the data set in the next chapter.

Chapter 3

Methodology and Data

Methodology

Several methodologies are used in this study. First, I utilize a corpus-based approach to study three utterance particles in Cantonese, namely, *ge3*, *laak3*, and *lo1*. Second, Conversation analysis is used to analyze the pragmatic meaning of the utterance particles by examining utterances line by line. Lastly, I also adopt conversational implicature from Grice's cooperative principle to explain the implied meaning in *ge3* and *lo1*.

Grice's Cooperative Principle

Grice (1975) introduces the term "implicature" and its verb form "implicate" along with his pragmatic theory: cooperative principle. In his words, "make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged." In order to achieve an effective and successful conversation exchange, according to him, both listeners and speakers must cooperatively contribute in a particular way. Grice also divides the cooperative principle into four maxims: quantity, quality, relation, and manner. A summary of these maxims is as follow:

Maxim of quantity:

- a. Make your contribution as informative as is required
- b. Do not make your contribution more informative than is required

Maxim of quality:

- a. Do not say what you believe is false
- b. Do not say that for which you lack adequate evidence

Maxim of relation:

- a. Be relevant

Maxim of manner:

- a. Avoid obscurity of expression
- b. Avoid ambiguity
- c. Be brief
- d. Be orderly

Conversational implicature occurs when a speaker violates or flouts a maxim. For example, when a speaker utters “I’m hungry,” what the speaker is saying is addressing his/her physical state of being hungry. What the speaker might be implicating, however, can be “let’s go get something to eat” or “can you cook me something?” This way, the speaker violates the first maxim of quantity above by not being informative enough to the listener. In Chapter 4 and 6, I will demonstrate how conversational implicature is encoded in the utterance particles *ge3* and *lol*.

Data

I will utilize two data sets in this study, the Hong Kong Cantonese Corpus and transcriptions of Cantonese YouTube videos. Together, these two data will allow me to discover findings in various categories.

Hong Kong Cantonese Corpus

The Hong Kong Cantonese Corpus (hereinafter HKCanCor) was created and designed by Luke and Wong (2015). It is a collection of transcribed conversations which contain recordings of spontaneous speeches, radio broadcast programs, and a monologue that took place between 1997 and 1998. The corpus contains 30 hours of recording, has an estimated 230,000 Chinese words, and is available online⁵. The texts in the corpus are part-of-speech tagged and romanized in Jyutping (see Figure 1 below). Because of the default format of the corpus, it was quite difficult to examine the utterances line-by-line with all the tags next to the words. In order to analyze the utterances individually, I decided to extract all of the texts out of the corpus. Rather than copying them manually, I wrote a simple Python script which extracts the entire text with a Python library, PyCantonese⁶, and save the texts as a text file. Finally, I uploaded the text file to

⁵ The HKCanCor corpus can be downloaded from <http://compling.hss.ntu.edu.sg/hkcancor/>.

⁶ The PyCantonese is a Python library which includes the entire HKCanCor and multiple corpus search functions.

a Google Spreadsheet and rearranged the text contents into different tabs based on the original files in the HKCanCor (see Figure 2).

Figure 1

A screenshot of the HKCanCor

```

<sent>
  <sent_head>
    H:
  </sent_head>
  <sent_tag>
    我/r/ngo5/
    知/v/zi1/
    你/r/nei5/
    好/d/hou2/
    鍾意/v/zung1ji3/
    車/n/ce1/
    , /w/VQ2/
    車/n/ce1/
    我/r/ngo5/
    唔/d/m4/
    夠/v/gau3/
    你/r/nei5/
    熟/a/suk6/
    嘅/y/laa3/
    ° /w/VQ1/
  </sent_tag>

```

Figure 2

A screenshot of the extracted texts of HKCanCor on the Google Spreadsheet

XXA	即係搵到呢, 係即好大單喇嘅嘢嘅.	
XXB	我最近聽到個, 即係睇到一段新消息呢, 即係就唔知真定假嘅.	
XXB	就係話有個女仔呢就", 就係白冰冰案嘅件事呢.	
XXA	唔.	
XXB	就話即係有一個受害者, 即係俾呢個陳也嘢與, 陳俊興, 係唔係嘢?	
XXC	陳俊興.	
XXB	陳俊興就, 談, 侵犯嘅.	
XXA	噃.	
XXB	噃呢佢就話呢, 就重有咗BB嘢.	
XXA	噃.	
XXB	噃佢打電話警署就話"我係好難佢, 我決定生出來, 然後鬧咗佢.	
XXB	即係噃嘢嘅新聞嘅.	
XXC	噃.	

Cantonese YouTube Videos

I also utilized a set of transcriptions of Cantonese YouTube videos (hereinafter CYTV) which I created for a course project. Several motivations existed to create this data: first, no Cantonese YouTube videos have been transcribed and analyzed; second, utterances in the videos are all spontaneous; third, utterances in the videos represent the most recent Cantonese style of

speech. The CYTV contains transcriptions of twenty-two videos from different YouTube channels. The corpus contains three hours of video transcriptions and approximately 60,000 Chinese words. The length of the videos has a range of 4 minutes to 17 minutes. Table 1 displays the channels, genres of channels, gender of the hosts, and titles of transcribed videos in the data. The channels in Table 1 were found by asking acquaintances, asking for recommendations on social media such as Facebook, searching keywords on YouTube, and looking for related channels on YouTube. Table 2 gives brief descriptions of each channel.

The Procedure of Collecting the Data from YouTube Videos

After obtaining a list of recommended channels, I classified the channels into four different genres⁷: complaint, product review, cooking, and beauty and makeup. Next, I randomly picked a channel in each genre. Initially, I planned to collect data from one male YouTuber and one female YouTuber for each genre because I was also interested in the usage of utterance particles between the genders. Because I had only one channel in the complaint genre and the product review genre, I was not able to achieve the goal. The corpus contains data of one female YouTuber for complaint, one male YouTuber for product review, one male and one female YouTuber for cooking, and one male and one female YouTuber for beauty and makeup. Videos were selected according to the order of the existing playlist of the channels.

In terms of transcribing the videos, I utilized the voice typing tool on Google Docs. Voice typing is a tool for transcribing speech into text. A number of languages are available in this tool. Cantonese is one of the examples. When the target language is selected, a user speaks through a

⁷ It has been a controversy over the use of the terms “register” and “genre.” The distinctions of the use of these terms are sometimes vague. For the use of the term “genre” in this study, I adopted Lee’s (2001) definition to differentiate “genre” from “register.” In Lee’s words, “[r]egister is used when we view a text as language: as the instantiation of a conventionali[z]ed, functional configuration of language tied to certain broad societal situations....*Genre* is used when we view the text as a member of a category: a culturally recogni[z]ed artifact, a grouping of texts according to some conventionally recogni[z]ed criteria, a grouping according to purposive goals, culturally defined” (p.46). Therefore, I view each of the transcribed text as a member of a category.

microphone and the system will recognize the language and automatically convert the speech into plain texts on a Google Docs file in real time. At first, I tested whether the tool was able to recognize sound sequences from the videos or not. I set up two laptops on a desk. One was used to play the videos and the another was used to transcribe the videos using the tool. As a result, the tool failed to recognize the sound sequences after trying several times with different distances of two laptops. Because of this technical issue, I decided to repeat the speech in the videos with my own voice while using the voice typing tool. Although using the tool may be slightly faster than typing by hands, the drawback was that the tool recognized wrong words due to the same pronunciations and tones in the language or failed to recognize words. At some point, I had to return to the videos and fix the errors to ensure the accurateness of the transcriptions. At last, fifteen Cantonese YouTube videos were transcribed. Each transcription file contains information of the title, host/channel, YouTube ID, language, time length, and word count (see Figure 3 below). At this stage, the texts in CYTV are not romanized in Jyutping and grammatically annotated.

Table 1

The List of Videos in CYTV

Channels	Genres	Gender	Titles of videos
YankiDin	Complaint	F	<ol style="list-style-type: none"> 1. 最 X 討厭遲到藉口 The most annoying excuses of being late 2. 去旅行最 X 討厭既行為 The most annoying behaviors when traveling 3. 戲院睇戲最 X 討厭嘅人 The most annoying people in a movie theatre 4. 有邊次網購唔中伏? Traps on online buying

JASON(大 J)	Product review	M	<ol style="list-style-type: none"> 1. 飲可樂可以解 Wasabi 的辣?! w/ Kei&Mai Can Coke stop the heat of Wasabi? 2. 蔬菜到底有幾污糟?! How dirty is vegetable? 3. 做 gym 變撒亞人! 撒亞人運動戰衣! Working out as a Saiyan! Saiyan sport armor! 4. 用急凍殺蟲劑冷凍食物! 會係咩味道? Freezing spray to freeze foods! How does it taste then? 5. 絕版! 幪面超人 555 變身腰帶! Discontinued! Kamen rider 555 changing belt 6. 獎勵自己! 買「細細盒」LEGO! NINJAGO CITY! Reward myself! Bought a “small box” of LEGO
Mama Cheung	Cooking	F	<ol style="list-style-type: none"> 1. 小籠包 簡單做法 Xiao Long Bao Soup Dumpling Easy Recipe 2. 糯米卷 簡單做法 Glutinous Rice Rolls Easy Recipe 3. 苦瓜炒牛肉簡單做法 Bitter melon beef Easy Recipe
越煮越好 (yut6 jyu2 yut6 hou2)	Cooking	M	<ol style="list-style-type: none"> 1. 炒雞粒 檸檬汁 \$25 蚊你都做得到 Lemon chicken. You can do it for just \$25. 2. 桃膠燉奶粉 美顏滋補 \$5 蚊做兩碗 Steam milk powder with peach gum. Skin nourishing dessert. \$5 for two bowls. 3. 三色椒魚腩 \$38 好餸飯 Fish fillets with peppers. \$38 good with rice.
RickyKAZAF	Beauty and Makeup	M	<ol style="list-style-type: none"> 1. 第一次 Gel 頭新手必學! First time setting up a hairstyle 2. 第一次化妝 初學新手必看! First time makeup. Novice must watch! 3. 搽香水都有技巧!! 人生五大香水推薦 How to use perfumes! My top five recommendations

AHFAMA KE UP	Beauty and Makeup	F	<ol style="list-style-type: none"> 1. 阿花五大常用胭脂分享 Top 5 Blushes 2015 2. 近日愛上塗 五大豆沙紅唇膏 Top 5 Lip Color 3. 口水多過化妝日常隨意妝 My Everyday Make Up
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Table 2

The Descriptions of Each Channel in CYTV

Channels	Descriptions
YankiDin	This channel contains three main types of videos: complaints, solo dances, and music videos. For complaints, the YouTuber uses sarcasm to complain about people's worst behaviors, manners, and thoughts.
JASON(大 J)	This channel reviews different types of products purchased online (or at stores), attempts life tricks, and does video blogs (vlog).
Mama Cheung	This channel shares and teaches the audience various kinds of traditional Cantonese cuisine recipes, including nostalgic snacks.
越煮越好	This channel shares and teaches the audience various kinds of traditional Cantonese cuisine recipes and life tricks for health.
RickyKAZAF	This channel reviews beauty products for men and does tutorials on how to do men's makeup, use perfumes, and create unique hair styles. The YouTuber also does makeovers in public areas.
AHFAMA KE UP	This channel reviews beauty products for women, does video blogs and tutorials on how to do makeup for different seasons and holiday festivals.

Figure 3

A screenshot of the CYTV



In the next three chapters, I will analyze the utterance particles *ge3*, *laak3*, and *lol* respectively in terms of evidentiality, epistemic modality, and mirativity. Moreover, I will explain the differences between *ge3* and *laak3* in respect of the sense of certainty at the end of Chapter 5.

Chapter 4

Utterance Particle *Ge3*

In this chapter, I will postulate that, in addition to the sense of epistemic attitude, the utterance particle *ge3* also conveys evidentiality (access to prior knowledge) through pragmatic implication. Revealing the evidential meaning of *ge3* allow us to differentiate it from the utterance particle *laak3* (discussed in Chapter 5). The chapter proceeds as follows. I first provide a survey of previous literature in terms of various syntactic functions of the particle *ge3*. Then, I will discuss the definitions of *ge3* in early dictionaries, Cantonese textbooks, and early linguistic analyses. Next, I will demonstrate the evidential implications of the utterance particle *ge3* with corresponding examples and discuss the overall frequency distribution of *ge3* in the data. And finally, a summary will be followed.

Early Studies of the Particle *Ge3*

Syntactic Functions of Ge3

Because the particle *ge3* itself has multiple linguistic functions (Light 1983, Kwok 1984, Fung 2000, Bourgerie 2010, Matthews and Yip 2011, Baker and Ho 2015), it is important to first discuss these functions of *ge3* to avoid confusion of the focus of this study. An example of each of these functions excerpted from previous studies is also provided in (1) below. For the ease of recognition of the particle being discussed, I have marked them in boldface.

(1) Functions of the particle *ge3*:

a) It functions as a possessive marker

gausauh ***ge*** *baahngungsat*
professor LP⁸ office
'The professor's office.'
(Matthews and Yip 2011)

⁸ LP = Linking particle

b) It links an adjectival expression to a noun

hunghung-dei **ge** *saigwaa*
red-red-Prt⁹ Lnk¹⁰ watermelon
'A somewhat red watermelon.'
(Fung 2000)

c) It connects a clause to a noun

Haausi *m-hapgaak* **ge** *hoksaang* *jinggoi* *laubaan*
Exam not-pass Lnk student should retained
'Students who fail the exam should be retained.'
(Fung 2000)

d) It serves as a nominalizer

Geidak **ge** *dou* *gongsaai* *laa3*
Remember-able Nom all told-finish FP¹¹
'I've told (you) everything that I can recall.'
(Fung 2000)

e) It functions as an utterance particle

lī *bouh* *gēi* *hóu* *hó-kaau* **ge**
this CL machine very reliable SFP¹²
'This machine's very reliable.'
(Matthews and Yip 2011)

As we can see in (1a) to (1e), the particle *ge3* itself has a variety of syntactic functions. The primary focus of this present study is *ge3* (or *ge* in Yale romanization) in its function as an utterance particle, that is (1e) in the examples above. All other functions of *ge* in (1a) to (1d) above will not be covered. The utterance particle *ge3* generally conveys modality and has multiple pragmatic meanings. These meanings are context dependent. Meanings may vary depending on the context of conversations.

Early Definitions of the Utterance Particle Ge3

⁹ Prt = Particle

¹⁰ Lnk = Linking particle

¹¹ FP = Final particle

¹² SFP = Sentence final particle

The definitions of the utterance particle *ge3* given by various Cantonese dictionaries are rather simple and not thorough. Many of them provide similar definitions. To name a few, Kiu (1966 p. 305) defines *ge3* as expressing certainty in his Cantonese dictionary. Another Cantonese dictionary written by Yiu, Auyeung, and Chow (1981 p.65) provides two definitions of the utterance particle *ge3*: to express “it is indeed so” and to express doubt. The first definition is similar to Kiu’s definition which also refers certainty. However, the second definition is out of the scope of the present discussion, therefore, I will not discuss it. On the other hand, Cantonese textbooks and grammar books also provide relatively similar definitions. In his Cantonese course book, Bourgerie et al (2010 p.220) illustrates that *ge3* is often used to respond to a follow-up question. Baker and Ho (2015 p.30) state that the utterance particle *ge3* adds an emphatic sense to an utterance which makes it sound like “That’s the way it is!” This definition is somewhat vague as it does not accurately indicate the meaning of *ge3*. Matthews and Yip (2011 p.401) state in their Cantonese grammar book that *ge3* conveys an affirmative sense which commonly marks focus and emphasis. However, a thorough explanation of what *ge3* means or implies is not given. It is important to explicitly differentiate the utterance particle *ge3* with other similar utterance particles, such as *laak3* which also conveys certainty (Kwok 1984). We now turn to discuss early linguistic analyses of *ge3*.

Early Linguistic Analyses of the Utterance Particle Ge3

In the previous literature, Kwok (1984) provides a descriptive analysis of the utterance particle *ge3*. She describes *ge3* (or *ge* in her IPA transcription) as expressing certainty or determination. She also adds that *ge3* expresses a factual sense that “the speaker regards as true.”

(p.42) The following example is one of the excerpts from her account.

- (2) [hai jat ga:n foŋ dzai lei ge]
 be one classifier room diminutive suffix be ge

“It is a small room, that’s what it is.”

Although the use of *ge3* in (2) does strengthen the assertion, Kwok fails to provide an explicit explanation of what *ge3* may imply here. Moreover, the context of the utterance is not provided. Indeed, the context may carry clues about whether the speaker had accessed the knowledge in (2).

Contrary to Kwok, Fung (2000) provides more insight on *ge3*. She classifies the utterance particle *ge3* into a family group of G- (the particles that have an onset *g*). The members in the family G- share a core feature “situationally given,” that is a situation has been provided as a fact in the conversational context. She further demonstrates the semantic extensions of each member. For the semantic extensions of *ge3*, according to Fung, it provides background information and conveys certainty in the epistemic domain. Unlike Kwok, Fung explicitly remarks that *ge3* has a sense of epistemic attitude which “marks a high level of commitment on the part of the speaker to the proposition” (p.157). An example is excerpted from Fung’s account in (3).

- (3) 阿二叔 會 陸續 寄番嚟 *ge3*。
Aa-ji-suk *wui* *lukzuk* *gei-faanlei* ***ge3***
Second-uncle will continue mail-back FP
‘Second uncle will continue to send (them to us).’

While it is true that the particle *ge3* conveys certainty with a high commitment in this regard, Fung fails to provide the context of the utterance and to explicitly illustrate the implication of the speaker in (3). As a matter of fact, there may be clues in the background of the conversation which may indicate how the speaker in (3) learned that the second uncle will continue the action. I will return to this discussion at the end of next section.

As discussed in Chapter 2, Hanks (ibid) categorizes source of knowledge into three different modes: access to information, epistemic modality, and warrant for knowledge (for details, refer to the table in Appendix B). The mode of access to information can be thought of

when a speaker accesses knowledge through different senses. The mode of epistemic modality suggests that a speaker's attitude can be certain but does not necessarily have prior knowledge about an event. The mode of warrant for knowledge relates to whether the speaker has the right to know or not (this mode will not be discussed in this study). As a matter of fact, the statement in (3) could have two layers of meanings—epistemic modality and evidentiality (or access to information). The layer of epistemic modality serves as a primary meaning and refers to a speaker's affirmative attitude, which is also what Fung suggests in her account. The evidential layer serves as a pragmatic meaning, which implies a speaker who had access to his or her prior knowledge. However, this layer of reading is highly context dependent. I will discuss more in the following section.

The Implicature of the Utterance Particle *ge3*

In this section, I postulate that the utterance particle *ge3* embeds both epistemic and evidential meanings. I will explicitly demonstrate how speakers' access to information is encoded in the utterance particle *ge3* by analyzing the contexts. As illustrated earlier, epistemic modality expresses a speaker's commitment to the truth of the proposition of a statement (in short, levels of certainty) which may be based on the speaker's belief. That is, the speaker can be affirmative on something but does not necessarily have prior knowledge of it. On the other hand, evidentiality conveys how speakers obtain and/or access their prior knowledge. Let us examine some of the findings identified in the corpora below. The following excerpt is extracted from CYTV entitled "Top 5 Lip Color" which is a monologue.

- (4) Background: The host intended to introduce her top five favorite lipsticks to the audience. She first introduced her favorite lipstick which she had already applied to her lips earlier. She took out the lipstick and showed it to the audience and mentioned that she had

introduced the same lipstick several times in her different videos. After pointing out several advantages of the lipstick, she talked about the disadvantage of the lipstick which was that the color did not last long after she had applied it to her lips, especially after eating or drinking something. This is where she used the utterance particle *ge3*. Here are the utterances:

- a. 個 質感 就 真係 好似 平時 搽
go3 zat1gam2 zau6 zan1hai6 hou2ci5 ping4si4 caa4
 CL texture then really like usually apply
- 嘅 潤唇膏 咁樣 囉
ge3 jeon6seon4goul gam3joeng2 lol
 LP lip balm like this UP
- ‘The texture (of the lipstick) is just like a regular lip balm.’
- b. 普通 食嘢 飲嘢 係 完全
pou2tung1 sik6je5 jam2je5 hai6 jyun4cyun4
 general eat-something drink-something is completely
- 冇曬 㗎 嘞
Mou5saai3 gaa3 laak3
 gone UP UP
- ‘(The color on the lips) was gone after eating or drinking.’
- c. 係 唔 long lasting 嘅
hai6 m4 long lasting ge3
 is NEG long lasting UP
- ‘(It) does not last long.’
- d. 但係 我 都 好 願意 搽 佢 因為
daan6hai6 ngo5 dou1 hou2 jyun6ji3 caa4 keoi5 jan1wai6
 but I also very willing apply it because
- 隻 色 真係 好 靚
zek3 sik1 zan1hai6 hou2 leng3
 CL color really very pretty
- ‘But I will use it because the color is very pretty.’

As discussed in the previous section, the utterance particle *ge3* has a sense of certainty that strengthens an assertion or a statement. We can see this in (4c) above. Without using *ge3*,

the phrase *hai6 m4 long lasting* “it’s not enduring” is purely a declarative statement whose purpose is to state a fact. However, with the use of *ge3*, the sense of certainty reinforces the fact that the lipstick does not last long. One may ask, “Why is the speaker so sure about the fact?” It is because there is additional evidence that supports the speaker’s affirmative attitude. That evidence is the speaker’s access to her prior experience. We can see this by tracing the clues in the context. The speaker first mentioned in the background that she intended to introduce the lipstick that she had applied on her lips earlier that day. This implies that she already has prior experience of the quality of the lipstick. In (4a), she talked about the texture of the lipstick after applying it to her lips, and then in (4b) she remarked that the color was gone after eating or drinking something. These two lines of utterances further suggest that the speaker has prior experience of the quality of the lipstick. Showing prior experience of something is significant because it indicates that the speaker has perceptually obtained and accessed the knowledge. And this knowledge serves as evidence to support the speaker’s certainty. At last, the speaker concluded in (4c) that the color of the lipstick on her lips was not enduring. With the use of *ge3*, the utterance (4c) conveys certainty and implies that the speaker has prior experience of using the lipstick but does not want to emphasize it. The experience further supports the speaker’s certainty and knowledge.

On the other hand, one may expect the utterance particle *ge3* to be used in (4a) above. Instead of *ge3*, the speaker used *lo1* in this particular sentence. Although both *ge3* and *lo1* can also be used at the end of (4a), they convey different intended meanings of the speaker. We can see these by examining the meanings of the sentences (5a) and (5b) below.

- (5) a. 個 質感 就 真係 好似 平時 搽
go3 zat1gam2 zau6 zan1hai6 hou2ci5 ping4si4 caa4
 CL texture then really like usually apply
- 嘅 潤唇膏 咁樣 嚟
ge3 jeon6seon4goul gam3joeng2 lol
 LP lip balm like this UP
 ‘The texture (of the lipstick) is just like a regular lip balm.’ (obviousness)
- b. 個 質感 就 真係 好似 平時 搽
go3 zat1gam2 zau6 zan1hai6 hou2ci5 ping4si4 caa4
 CL texture then really like usually apply
- 嘅 潤唇膏 咁樣 嘅
ge3 jeon6seon4goul gam3joeng2 ge3
 LP lip balm like this UP
 ‘The texture (of the lipstick) is just like a regular lip balm.’ (certainty)

For ease of recognition, I have marked both *lol* and *ge3* in bold. The utterance (5a) is repeated from (4a) here with the use of *lol*. The utterance (5b) is basically the same sentence but with *ge3* at the end. As we can see, both sentences are not grammatically marked. However, they convey different meanings. For (5a) with *lol*, the speaker intended to express the sense of obviousness that the audience should have the common knowledge of how the texture of an ordinary lip balm should be. (For more discussion on the use of *lol*, please refer to Chapter 5 of this study.) For (5b) with *ge3*, the speaker was certain about the texture of the lipstick which has the same quality as a regular lip balm. I will now resume the focus of this chapter below.

The next example is another monologue extracted from CYTV entitled “How to use perfumes! My top five recommendations.”

- (6) Background: The video contains two parts. In the first part, the YouTuber demonstrated to the audience the efficient ways of applying perfumes. Then in the second part, he turned to share his top five recommendations of perfumes. He was telling the audience

that he owns over ten different brands of perfumes. When he mentioned that each brand has different scents, he used the utterance particle *ge3* to emphasize the certainty. Below are the utterances:

a. 第 二 樣 呢, 要 分享 呢, 就
dai6 ji6 joeng6 ne1, jiu3 fan1hoeng2 ne1, zau6
 CAR two CL UP, need share UP, that

係 我 自己 嘅 心頭好 嘞
hai6 ngo5 zi6gei2 ge3 sam1tau4hou3 laak3
 is I self LP favorite UP
 ‘The second thing that I want to share is my favorite ones.’

b. 咁 我 自己 屋企 有 成 十 幾 個
gam3 ngo5 zi6gei2 uk1kei2 jau5 sing4 sap6 gei2 go3
 so I self home have about ten some CL

品牌 嘅 香水 啦
ban2paai4 ge3 hoeng1seoi2 laa1
 brand LP perfume UP
 ‘So, I have more than ten brands of perfumes at home.’

c. 每 一 隻 品牌 都 有 唔同 嘅
mui5 jat1 zek3 ban2paai4 dou1 jau5 m4tung4 ge3
 each one CL brand also have different LP

味道 嘅
mei6dou6 ge3
 flavor UP
 ‘Each brand also has different scents.’

d. 因為 佢哋 有 獨特 嘅
jan1wai6 keoi5dei6 jau5 duk6dak6 ge3
 because they have unique LP

香水調味師 嘞
hoeng1seoi2tiu4mei6si1 laa1
 perfumer UP
 ‘Because they (the brands) all have a special perfumer.’

e. 我 自己 呢, 就 唔 諗 嗰 堆 嘅 調味
ngo5 zi6gei2 ne1, zau6 m4 lam2 go2 deoi1 ge3 tiu4mei6

I self UP then not think that CL LP favouring

究竟 個 成份 係 啲 乜嘢
gau3ging2 go3 sing4fan6 hai6 di1 mat1je5
 after all CL ingredient is some what

“Anyway, I myself don’t care about what ingredients are used to compose the scent.”

f. 我 純粹 呢, 都 係 因為 個 味道
ngo5 seon4seoi6 ne1 dou1 hai6 jan1wai4 go3 mei6dou6
 I purely UP also is because CL flavor

而 去 買 嗰 支 香水 嘅 啫
ji4 heoi3 maai5 go2 zil hoeng1seoi2 ge3 zel
 then go buy that CL perfume UP UP

“I buy the perfume purely because of the scent (of the perfume).”

Note that the *ge3* with the gloss LP underneath in (6a) to (6e) functions as linking particles, not utterance particles. Therefore, these *ge3* will not be discussed. In (6c) with the use of the utterance particle *ge3* at the end, the host explicitly asserted that each brand of perfume had different scents. Like the example in (4c), the utterance particle *ge3* in (6c) has epistemic modality as a primary meaning and evidentiality as a pragmatic meaning. The evidence—prior experience—backs up the speaker’s definite attitude. Recall that the importance of prior knowledge is to indicate that the speaker had perceptually obtained the knowledge sometime in the past. We can trace the clues to prior knowledge from the context in (6). First, the host explicitly mentioned in (6b) that he possessed over ten different brands of perfumes at home. Later, he added in (6f) that his buying habit of perfume completely depended on the scent of a perfume. These two utterances indicate that he had acquired sensory experience probably by seeing, touching, and/or smelling in which this experience allowed him to assert that there were various scents in each brand of perfume. The implicature of (6c) is something like “I have tried them before.”

The context of the two examples illustrated above reveals that the utterance particle *ge3* has both epistemic modality and evidentiality; however, this may not always be true. Some contexts may not explicitly provide clues to show whether the speakers have accessed their prior experience. In this case, *ge3* conveys only epistemic certainty. Let us examine two more examples from the HKCanCor. The following excerpt is a conversation between two speakers.

(7) Background: At the time, Hong Kong (short for HK) ten-dollar bills were being speculated on in the speculation market. Speaker A (A) and B (B) were discussing HK ten-dollar bills and their potential values. A told B that it is better if he has HK ten-dollar bills that are new and unfolded, with numbers in order on the bills. B claimed that he has many HK ten-dollar bills. A urged B that he should not fold the HK ten-dollar bills. They would be worth less if he folded them. B responded that the HK ten-dollar bills he owns were not folded. A remarked that unused HK ten-dollar bills were worth more than ten HK dollars now. He then mentioned that he might have seen buyers offering higher values. He suggested that speaker B keep two HK ten-dollar bills. B was trying to remember how many HK ten-dollar bills he owned. A then told B if there was a good sequence of numbers printed on the bills, he could sell them for a better price. This is where A uttered the utterance particle *ge3*. Here are the utterances:

a.	A	唔	只	值	十	蚊	嚟	而家,	我	好似
		<i>m4</i>	<i>zi2</i>	<i>zik6</i>	<i>sap6</i>	<i>man1</i>	<i>gaa3</i>	<i>ji4gaa1</i>	<i>ngo5</i>	<i>hou2ci5</i>
		Not	only	worth	ten	dollar	UP	now	I	seem like
		見過,		佢	唔	知	高	幾多		價錢
		<i>gin3-gwo3,</i>		<i>keoi5</i>	<i>n4</i>	<i>zi1</i>	<i>gou1</i>	<i>gei2do1</i>		<i>gaa3cin2</i>
		see-EXP		he/she	not	know	high	how much		cost
		收購		嚟,	係	高	啲	嚟,	所有	未
		<i>sau1kau3</i>		<i>gaa3,</i>	<i>hai6</i>	<i>gou1</i>	<i>dil</i>	<i>gaa3,</i>	<i>so2jau5</i>	<i>mei6</i>
		purchase		UP	is	high	a-bit	UP	all	not

用過 嘅 十 蚊 紙。
jung6-gwo3 ge3 sap6 man1 zi2
 use-EXP LP ten dollar bill

‘It is worth not only ten HK dollars now. I may have seen that (someone) offered a somewhat higher price. The value was a bit higher for those unused HK ten-dollar bills.’

b. A 儲 兩 張 咪 算。
cou5 loeng5 zoeng1 mai6 syun3
 keep two CL then settled
 ‘Keeping two (HK ten-dollar bills) is enough.’

c. B 唔係, 有 十 張 度 嚟 好似。
m4hai6, jau5 sap6 zoeng1 dou2 lo1 hou2ci5
 no have ten CL around UP seem
 ‘No, I think I have about ten (HK ten-dollar bills).’

d. A 哦, 十 張 度。
o2, sap6 zoeng1 dou2
 INTJ ten CL around
 ‘Ok, around ten.’

e. B 十 張 定 廿 張, 我 唔
sap6 zoeng1 ding6 jaa6 zoeng1, ngo5 m4
 ten CL or twenty CL I not

記得咗 嚟。
gei3dak1-zo2 laa3
 remember-PFV UP
 ‘Ten or twenty, I don’t remember.’

f. A 如果 有 啲 靚 霖把 就 賣 得
jyu4gwo2 jau5 di1 leng3 lam4baa2 zau6 maai6 dak1
 if have some pretty number then sell ADV

貴 啲 嘅。
gwai3 di1 ge3
 expensive a-bit UP

‘If you have some good numbers (on the HK ten-dollar bills), you can sell them for more money.’

g. B 噉 又 冇 靚 霖把 嚟。
gam2 jau6 mou5 leng3 lam4baa2 laa3
 but again no pretty number UP
 ‘But they don’t have good numbers.’

In (7f), Speaker A demonstrates a definite attitude asserting that a HK ten-dollar bill is worth more money if there is a good serial number printed on it. This particular sentence contains both uncertain and certain senses. In the first part of the sentence, the speaker was unsure whether good serial numbers are on the HK ten-dollar bills. But he assumed that it is the case with an if statement. In the second part of the sentence, the speaker was certain that the HK ten-dollar bills have more value. This holds true if the condition in the first part of the sentence is achieved. However, our focus in (7f) is what made the speaker so affirmative about more value on HK ten-dollar bills with good serial numbers. In (7a), Speaker A mentioned that he might have seen that buyers offered higher values to those who intended to sell their HK ten-dollar bills. But this does not mean that a good serial number printed on a HK ten-dollar bill is also worth more than those that do not have a good serial number. Utterances (7b) to (7e) are conversation exchanges about the number of HK ten-dollar bills that Speaker B owned. No clues in these exchanges indicate that Speaker A accessed his prior knowledge about the higher value with a good serial number on a HK ten-dollar bill. At last, Speaker B responded to Speaker A that the HK ten-dollar bills he owned do not have a good serial number. Therefore, there is no backup evidence in the context to support Speaker A's certainty in (7f). The speaker's high level of commitment is based on his belief or conjecture in this scenario.

Another example from HKCanCor also shows no clues to prior experience in the context to back up the speaker's certainty.

- (8) Background: Two speakers were discussing schoolwork and what to do during the holiday season. Speaker B (B) was surprised that his aunt from Mainland China came to visit and stayed with his family after he came home. He had to take his aunt to the Kowloon area the next day and went back to school for homework. Speaker A (A) asked

B how he was progressing on his homework. B responded that he hoped to finish it that night. A then asked if B was planning to go home the next day. B told A that he planned to go home for the Winter Solstice and had to pick up his aunt again in the Kowloon area. A was surprised that B's aunt was still around. B told A that his aunt would definitely leave on Christmas day. B used the utterance particle *ge3* to reinforce his certainty. Let us examine the utterances below:

- a. A 你 聽日 返 屋企 㗎 嚟 嗎
nei5 teng1jat6 faan1 nguk1kei2 gaa3 laa3 wo3
 you tomorrow return home UP UP UP
 係 唔係 啊?
hai6 m4hai6 aa3?
 yes no UP
 ‘You are going home tomorrow, right?’
- b. B 係 啊, 聽日 會 返。
hai6 aa3, ting1jat6 wui5 faan1
 yes UP tomorrow will return
 ‘Yes, I will go home tomorrow.’
- c. A 返去 做冬?
faan1heoi3 zou6dung1
 return-back Winter Solstice
 ‘Are you going back for Winter Solstice?’
- d. B 係 啊, 聽日 又 會 又 會 接 我
hai6 aa3, ting1jat6 jau6 wui5 jau6 wui5 zip3 ngo5
 Yes UP tomorrow again will again will pick I
 姑媽 喇, 出, 諗, 九龍 “嗰 頭”
gulmaal laal, ceot1, e6, gau2lung4, go2 tau4
 father's older sister UP go INTJ Kowloon that area
 ‘Yes, I will pick up my aunt in the Kowloon area.’
- e. A 哦！佢 重未 走, 重 喺度。
o3 Keoi5 zung6mei6 zau2, zung6 hai2dou6
 INTJ she not yet leave still here
 ‘Oh, she hasn't left yet and is still around?’

- f. B 係 啊 佢, 九 日 啊。
hai6 aa3 keoi5, gau2 jat6 aa3
 yes UP she nine day UP
 ‘Yes, she (stays) nine days.’
- g. B 我 啱啱 星期 日 嗰 日 係
ngo5 ngaam1 ngaam1 sing1 kei4 jat6 go2 jat6 hai6
 I just now Sunday that day is
 第一 日 呀?
dai6 jat6 jat6 aa4
 first day UP
 ‘Was this past Sunday the first day?’
- h. B 定 星期六 係 第一 日 呢?
ding6 sing1 kei4 luk6 hai6 dai6 jat6 jat6 nei
 or Saturday is first day UP
 ‘Or was Saturday the first day?’
- i. B 唔 記得 咗 喇, 即 係 總 之 佢
m4 gei3 dak1-zo2 laa1, zik1 hai6 zung2 zi1 keoi5
 not remember-PFV UP that is anyway she
 聖誕節 嗰 日 會 走 嘅。
sing3 daan3 zit3 go2 jat6 wui5 zau2 ge3
 Christmas that day will leave UP
 ‘I don’t remember, but anyway, she will leave on Christmas day.’

In (8i), Speaker B at first shows uncertainty about which was the first day his aunt came, but he was definite that his aunt would leave for sure on Christmas with the use of the utterance particle *ge3*. If we examine the utterances closer, we find no clue (whether the aunt told the speaker, or the speaker overheard a conversation to acquire the knowledge) presented in (8a) to (8h) to support speaker B’s assertion (8i). Then, where did B gain the knowledge? Based on the context, we have no clues. One may assume that Speaker B must have heard or have been told that his aunt would leave on Christmas. However, we cannot conclude without clues in the context that indicate the speaker had accessed his prior knowledge. Thus, the utterance particle *ge3* in (8i) conveys only affirmative attitude, that is epistemic modality.

I have examined examples where clues in the context provide supporting evidence (speaker's access to prior knowledge or experience) to the speaker's assertion (examples 4 and 6). There are also instances where no clues presented in the background back up the speaker's high level of commitment (examples 7 and 8). However, explicit clues of a speaker's prior knowledge do not always emerge before the assertion. Indications of a speaker's access to prior knowledge can also appear after the assertion. We can see this by examining the following monologue extracted from CYTV, entitled "Kamen Rider 555 changing belt".

(9) Background: The host was doing a product review which was a toy, a hero changing belt, he had bought earlier. After showing every item to the audience, he stated that the changing belt was discontinued. However, he immediately asserted that there was still a chance to get one with the use of the utterance particle *ge3*.

- a. 雖然 已經 絕咗版
seoi1jin4 ji5ging1 zyut6-zo2 baan2
 although already discontinue-PFV
 'Although (the changing belt) is already discontinued....'
- b. 噏 但係 其實 仲有 機會 可以
gam2 daan6hai6 kei4sat6 zung6jau5 gei1wui2 ho2ji5
 then but in fact still have opportunity can

 獲得 嘅
wok6dak1 ge3
 obtain UP
 'In fact, (you) can still get it.'
- c. 因為 喺 佢哋 官網 上面 呢
jan1wai4 hai2 keoi5dei2 gun1mong5 soeng5min6 nel
 because on their official website upstairs UP

 其實 而家 做緊 一 個
kei4sat6 ji4gaal zou6-gan2 jat1 go3
 in fact now do-PROG one CL

有獎問答遊戲

jau5zoeng2man6daap3jau4 hei3

prize-winning game

‘Because their official website is holding a prize-winning game now.’

- d. 只要 你 喺 十三 號 之前 買
zi2jiu3 nei5 hai2 sap6saam1 hou6 zi1cin4 maai5
as long as you at thirteen day before buy

Kaixa Gear 嘅 變身 腰帶

Kaixa Gear ge3 bin3san1 jiu1daai3

Kaixa Gear LP changing belt

‘As long as you buy a Kaixa Gear changing belt before the thirteenth of the month...’

- e. 跟住 之後 再 答 一 條 問題
gan1zyu6 zi1hau6 zoi3 daap3 jat1 tiu4 man6tai4
then after again answer one CL question
‘And then answer a question...’

- f. 如果 你 答得 最好 嘅話 呢
jyu4gwo2 nei5 daap3-dak1 zeoi3hou2 ge3waa6 nei1
if you answer-ADV best as said UP
‘If your answer is the best one...’

- g. 噉 就 有 機會 呢 可以 贏到 呢
gam2 zau6 jau5 gei1wui2 nei1 ho2ji5 jeng4-dou2 nei1
then then have opportunity UP can win-PRT this

一 條 嘅 CSM Fives Gear 絕版 嘅
jat1 tiu4 ge3 CSM Fives Gear zyut6baan2 ge3
one CL LP CSM Fives Gear discontinue LP

變身 腰帶

bin3san1 jiu1daai3

changing belt

‘Then you will have a chance to win the discontinued CSM Fives Gear changing belt.’

In (9a), the speaker explicitly indicated that the Fives Gear changing belt was discontinued. But he immediately added in (9b) that there was still a chance to obtain the changing belt. In this utterance, the speaker used *ge3* to strengthen his assertion. As we can see, there is no supporting evidence (showing that the speaker had accessed his prior knowledge) presented before the utterance (9b). In fact, the clue appears in (9c) that the speaker claimed that there was a prize-winning game happening on the official website. This suggests that the speaker had perceptually acquired the information from the website about another chance to obtain a changing belt. Therefore, *ge3* in (9b) conveys speaker's high level of commitment and implies "I had learned the information somewhere else." Utterances (9d) to (9g) indicate the only way to obtain the belt in response to the assertion in (9b). The example above demonstrates the key point that clues to speakers' access to prior knowledge do not only appear before the assertion but also after it.

I have thus far demonstrated the epistemic and evidential senses of the utterance particle *ge3* in this section. The evidential implicature, that is access to prior knowledge or experience, only emerges where clues are identified in the context (before or after an assertion). This is also the case in the example of Fung's account discussed in previous chapter. Let us return to the discussion of example (3). I repeat (3) as (10) below.

- (10) 阿二叔 會 陸續 寄番嚟 *ge3*。
Aa-ji-suk *wui* *lukzuk* *gei-faanlei* ***ge3***
 Second-uncle will continue mail-back FP
 'Second uncle will continue to send (them to us).'

Despite the epistemic sense, *ge3* in (10) also conveys an evidential meaning through implicature. We can identify the implicature by examining the context. The following

transcriptions and translations are extracted from the Kaleidoscope textbook vol.1 (Jian & Christensen 1994)¹³.

(11) Background: The conversation below was between a man (Speaker A) and a woman (Speaker B) about a letter from the man's mailbox. A realized that B's mail was mistakenly placed into A's mailbox. A then informed B about the letter being placed into the wrong mailbox. B took the letter from A and realized that it was from her second uncle in Hong Kong. B read the letter and learned that her uncle would continue to send fashion magazines to her.

- a. A 喂, 嬌媽 呀, 乜 你 封 信 嚟㗎
wai3 giu1maal aa3, mat1 nei5 fung1 seon3 lai4-zo2
 INTJ mother Giu UP why you CL letter come-PFV
- 我 度 嘅?
ngo5 dou6 ge2
 I here UP
 'Hey, Mother Giu, how come your letter showed up in my mailbox?'
- b. B 無理由 㗎。 睇 吓, 哦, 係 香港
mou4lei5jau4 gaa3 tai2 haa6, o3 hai6 hoeng1gong2
 impossible UP see little INTJ is Hong Kong
- 二叔 寄 嚟 㗎。 我 二叔 話
ji6suk1 gei3 lai4 gaa3 ngo5 ji6suk1 waa6
 second uncle mail come UP I second uncle say
- 以後 喺 香港 陸續 寄 啲
ji5hau6 hai2 hoeng1gong2 luk6zuk6 gei3 dil
 later in Hong Kong continue mail some
- 時裝雜誌 番嚟 㗎。 個 衰女 又
si4zong1zaap6zi3 faan1lei4 wo3 go3 seoi1nei5 jau6
 fashion-magazine back UP that bad-daughter still
- 係 攞 嘅, 寫 信 畀 二叔 個

¹³ I hereby express my gratitude to Matthew Christensen who lent me the textbook. On the other hand, there are no Chinese characters in the original text. I added Chinese characters in order to keep consistency of this study.

hai6 mung2 ge2, se2 seon3 bei2 ji6suk1 go3
 is muddled UP write letter to second uncle that

地址 都 唔 寫 清楚。
dei6zi2 dou1 m4 se2 cing1co2
 address also NEG write clear

‘It’s impossible. Let me see. Oh, it is from our second uncle. Our uncle said he would continue to send more fashion magazines to us from Hong Kong. How muddled-head our daughter is! Why didn’t she write our address clearly for her uncle?’

c. A 嬌媽, 呢 卷 好似 係 你 㗎 囉...
giu1maal ni1 gyun2 hou2ci5 hai6 nei5 gaa3 bo3
 Mother Giu this CL seem is you UP UP
 ‘Mother Giu, this roll seems to be yours, I believe.’

d. B 係 呀, 係 呀... 哎呀, 赤 死 我 咯!
hai6 aa3 hai6 aa3 aai2jaa5 cek3 sei2 ngo5 lo3
 yes UP yes UP INTJ hurt die me UP

咁 靚 嘅 時裝雜誌 掉咗 落
gam3 leng3 ge3 si4zong1zaap6zi3 diu6-zo2 lok6
 such beautiful LP fashion-magazine dump-PFV into

嗰 隻 爛鬼 菜籃 度 呀,
go2 zek3 laan6gwai2 coi3laam4 dou6 aa3
 that CL broken vegetable basket there UP

重使 恨 嘅?
zung6sai2 han6 ge2
 still want UP

‘Right, right! Oh, it really hurts me to death! Such a beautiful fashion magazine has been dumped into his miserable vegetable basket. Who will like it now!’

e. A 你 二叔 耐不時 都 返嚟 㗎,
nei5 ji6suk1 noi6bat1si4 dou1 faan1lai4 gaa2
 you second uncle occasionally also come back UP

點會 地埗 都 搞錯 㗎? 哦, 我
dim2wui5 dei6bou6 dou1 gaau2co3 gaa3 ngo2 ngo5
 how come address still mistake UP INTJ I

知 喇, 人哋 返嚟 呢, 你 就
zi1 laa3 jan4dei6 faan1lai4 nel, nei5 zau6

know UP he come back UP you then
 吼住 人哋 啲 西紙, 茶 都 唔
hau3-zyu6 jan4dei6 di1 sailzi2 caa4 dou1 m4
 watch-CONT he some foreign money tea also NEG

請 人哋 飲 翻 餐。 噉 呀, 唔
ceng2 jan4dei6 jam2 faan1 caan1 gam2 aa3, m4
 buy he drink PRT meal then UP NEG

寫 錯 都 有 鬼 啦! e, 係 唔係
se2 co3 dou1 jau5 gwai2 laa1 e hai6 m4hai6
 write wrong also have ghost UP INTJ yes no

寄 嚟 俾 我 㗎?
gei3 lai4 bei2 ngo5 gaa3?
 mail come to I UP

‘Your uncle visits you once in a while, doesn’t he? How can he possibly get your address wrong? Oh, I see. When he comes here, you probably only stare at his foreign money and you haven’t even treated him once to dim sum. Such being the case, if he didn’t deliberately get the address wrong, there must be a ghost preventing him from doing so. Hey, maybe this magazine was sent to me and not you.’

f. B 你 同 我 慳 啲 啦! 呢 本 你 呀
nei5 tung4 ngo5 haan1 di1 laa1 ni1 bun2 nei5 aa3
 you for I save little UP this CL you UP

啱! 呀, 醒伯 呀, 呢 幾 日
ngaam1 aa3 sing2baak3 aa3 ni1 gei2 jat6
 fit INTJ Uncle Sing UP this few day

唔該 你 同 我 吼住 吓 哩。
m4goi1 nei5 tung4 ngo5 hau3-zyu6 haa6 le3
 please you for I watch-CONT a bit UP

阿二叔 會 陸續 寄番嚟 嘅。
aa3ji6suk1 wui5 luk6zuk6 gei3-faan1lei4 ge3
second uncle will continue mail-back UP

‘Nonsense! That one just fits you! By the way, Uncle Sing, please watch the mail for me for the next few days. Our uncle will continue to send us magazines.’

(Jian & Christensen, *ibid*, pp.286-287, 297-298)

I will now examine the context above. In (11a), Speaker A (A) informed Speaker B (B) that her letter was mistakenly placed into his mailbox. Then B took the letter from A in (11b) and learned that the letter was from her second uncle. After reading the letter, she found out that her uncle would continue to send fashion magazines to her daughter. She then blamed her daughter for giving out a wrong address to the uncle. A then discovered a roll of something that seems to be for B in (11c). In (11d), B recognized that was the magazine mentioned in the letter. She did not know why the magazine was placed inside the broken basket. And then in (11e), A doubted that B's uncle does not know the correct address because her uncle comes to visit once in a while. A then doubted that the only reason her uncle wrote down a wrong address was because B never bought her uncle a meal. Lastly in (11f), B asked A for a favor watching the mail for B because her uncle would continue to send magazines to her in the next few days. Note that the last sentence (in bold) of (11f) is the same sentence as in (10). B demonstrates an affirmative attitude when she uttered the last part of (11f) with the utterance particle *ge3*. On one hand, *ge3* conveys epistemic meaning in this instance. At the same time, it also has an evidential meaning here implying Speaker B had acquired prior knowledge of knowing her uncle who would send her fashion magazines in the following days. We can identify the clue in (11b) in which B learned about the fact from the letter. This is where speaker B perceptually acquired the knowledge. Therefore, an implication is encoded in the speaker's assertion in (10) or (11f) implying that the speaker had accessed her prior knowledge. In light of the discussion above, I conclude that the utterance particle *ge3* conveys both epistemic and evidential meanings. In the next section, I will discuss the frequency distribution of the utterance particle *ge3*.

Discussion

In addition to the two purposes of this study mentioned in Chapter 1, I am also interested in the relationship between genres and the use of utterance particles in the data. Therefore, in this section, I will demonstrate the frequency distribution of the utterance particle *ge3* and the statistics results. Table 2 and 3 below indicate the frequency distribution of *ge3*. Other functions of *ge3* discussed earlier are not included in the tables. Table 2 is the frequency distribution of *ge3* identified in CYTV. There are four genres: complaint, product review, cooking, and makeup. Overall, the genres which have more occurrences of *ge3* are cooking and makeup. In contrast, complaint receives the least occurrence. Table 3 is the result from HKCanCor. I simply categorize the genres into two groups: radio broadcast and non-radio broadcast. Based on Table 3, non-radio broadcast receives more occurrences of *ge3*. In order to identify whether the genres affect the frequency of *ge3*, I performed a chi-square test and a Cramer's V test for both tables. As a note, the chi-square test is a statistical calculation to determine whether the categories (genres vs. frequency) are significantly associated while the Cramer's V test measures the effect size of the factors between the categorial fields¹⁴. As a result, I received a p-value ≤ 0.001 for both tables. This suggests that there is a relationship between the genres and the frequency of *ge3*. However, I received the Cramer's V values for Table 2 and 3 which are 0.15 and 0.03, respectively. These values reflect a very weak association between the genres and the frequency of *ge3*. In fact, one factor that may also affect the statistics is that there is only one channel for each complaint and product review in CYTV while there are two channels for each cooking and makeup. Thus, the relationship discussed above may be altered if more data becomes available.

Table 2

Frequency Distribution of Epistemic ge3 in CYTV

¹⁴ The statistical results were obtained by running an R script written by Gries (2009) on the platform of Rstudio created by R Core Team (2018).

Genres	Total lines of utterances without epistemic <i>ge3</i>	Total lines of utterances with epistemic <i>ge3</i>
Complaint	1104	7
Product review	540	38
Cooking	1445	114
Makeup	1042	127

Note: chi-square = 101.7 df = 3 p <= 0.001 Cramer's V = 0.15

Table 3

*Frequency Distribution of Epistemic *ge3* in HKCanCor*

Genres	Total lines of utterances without epistemic <i>ge3</i>	Total lines of utterances with epistemic <i>ge3</i>
Radio broadcast	3325	85
Non-radio broadcast	12080	180

Note: chi-square = 16.8 df = 1 p <= 0.001 Cramer's V = 0.03

Summary

From the discussion in the previous sections, I have explicitly demonstrated how evidentiality—access to prior knowledge—is realized in the utterance particles *ge3*. It is through the means of implicature. Clues in the conversational context provide evidences of speakers' prior knowledge or experience which support speakers' affirmative attitudes about their knowledge (examples 4, 6, and 11). When there is no indication presented in the context, it is the speakers' belief or conjecture that sustains their commitment (examples 7 and 8). I have further demonstrated that clues may not only appear before speakers' assertion but also after the assertion (example 9). In light of the analyses in the previous sections, I conclude that the utterance particle *ge3* conveys epistemic modality as a primary meaning and evidentiality through implicature. However, the evidential implication is highly context dependent. In terms of

frequency distribution of the utterance particle *ge3*, the results suggest that there is no obvious relationship between the genres and the frequency.

Chapter 5

Utterance Particle *Laak3*

This chapter aims to provide further insight on the epistemic sense of the utterance particle *laak3* and untangle the distinctions between it and the utterance particle *ge3*. The present chapter will proceed as follows. I will first discuss the general definition of *laak3* in Cantonese dictionaries and coursebooks, and then move on to the discussion of early linguistic analysis of *laak3*. Afterwards, I will explain the epistemic sense of *laak3* and demonstrate the differences between *ge3* and *laak3* in terms of the sense of certainty. Lastly, a discussion of the overall frequency distribution of *laak3* in the data and a summary will be followed.

Early Studies of the Utterance Particle *Laak3*

*Definitions of the Utterance Particle *Laak3**

The definitions of the utterance particle *laak3* vary in Cantonese dictionaries and coursebooks. Among them, some assert that *laak3* expresses a sense of certainty (Kiu 1966 pp.302-303; Yiu, Auyeung, and Chow 1981 p.118). Some claim that *laak3* denotes a completed action (Kiu *ibid*; Sidney Lau 1972 p.56), a polite refusal of an invitation, and a sense of advice and request (Sidney *Ibid*). Others suggest that *laak3* also signifies a changed state or current relevance (Sidney *Ibid*, Bourgerie 2010 p.84, Matthews and Yip 2011 p.403, and Baker and Ho 2015 p.30). What they mean by current relevance is that the use of *laak3* relates to the current state of affairs being discussed. There is no doubt that all these descriptions are part of the nature of *laak3*.

Early Linguistic Analyses of the Utterance Particle *Laak3*

In terms of early linguistic analyses, Kwok (1984) has a similar insight with Kiu and Yiu, Auyeung, and Chow, she suggests that *laak3* conveys a sense of certainty (p.48). Recall that she

also claims that the utterance particle *ge3* expresses certainty, however, she was not able to differentiate *ge3* and *laak3*. I agree with her that both utterance particles convey certainty, but they convey different senses of certainty. I will return to this discussion in the next section.

In her account, Fung (2000) classifies all of the utterance particles that have the lateral approximant as onset into a family group L-. The utterance particle *laak3* being discussed here, therefore, is classified into the L- family in her study. She argues that all of the members in the family group share one core semantic feature—realization of a state of affairs. What she proposes is similar with the concept of a change of state suggested by Sidney, Bourgerie, and Baker and Ho aforementioned earlier. However, there are two types of realizations, according to Fung. The realization of a physical state and the realization of an epistemic state. In her words, the realization of a physical state is that a state did not exist before, but through the process of a change of state, it becomes an existing state. Fung provides an example in which a speaker uses an utterance particle *laa3* (this particle is not the focus of this present study) to express a change of state from “being in the state of not going to America” to “being in the state of going to America,” (p.78) as in (12) below. For the realization of an epistemic state, she explains that a state in the real world may not exist in a speaker’s epistemic world until he/she realizes it. We can see this in example (13) extracted from Fung’s account (p.79).

(12) 我 去 美國 laa3 ◦
 Ngo heoi Meigwok laa3
 I go America FP
 ‘I am going to the U.S.’

(13) 哎呀, 今日 廿五 號 laa3 ◦
 Aijaa, gamjat jaa-ng hou laa3
 Oh today twenty-five number FP
 ‘Oh, today is (already) 25th of the month.’

In the speaker's epistemic world (according to Fung), prior to the utterance in (13), the awareness of the day being 25th of the month did not exist until the speaker realized it, which is the utterance (13). I agree with Fung's proposal in this regard. However, to avoid unexpected confusion, I will simply refer the two types of realizations to "a change of state" in the following discussions. While Fung remarks that the utterance particle *laak3* encodes "pure" epistemic modality (p.83), she fails to explicitly explain the epistemic sense of *laak3* in her study due to the low frequency of the particle in her data set (pp.104-105). In the next section, I will attempt to provide further explanations of the phenomenon of *laak3* in terms of epistemic meaning and the signal of a change of state. Moreover, as noted at the beginning of this chapter, I will untangle the differences between the utterance particles *ge3* and *laak3*.

The Epistemic Attitude and the Change of State of the Utterance Particle *Laak3*

In this section, I will discuss the epistemic attitude and the signal of a change of state of the utterance particle *laak3* with examples drawn from the corpora. Before proceeding, I should illustrate the definition of the term "epistemic" that I will adopt in this chapter. In general, the term "epistemic" or "epistemic modality" is defined as the degree of a speaker's confidence in the truth of the proposition of an utterance (Palmer 1986, de Haan 1999, and Nuckolls 2018, to name a few). This definition focuses on the speaker's level of truthfulness of the meaning of an utterance. Nuyts (2001) also proposes a definition for "epistemic modality concerns an estimation of the likelihood that a certain state of affairs is/has been/will be true (or false) in the context of the possible world under consideration." (pp.21-22) His definition focuses on the possibility of the occurrence of an event in the past, present, or future world. For this particular study, I will propose an extended definition for the term "epistemic", based on Palmer's and

Nuyts' definitions, to explain the phenomenon of the utterance particle *laak3*. The definition is as follows:

(14) The extended definition of “epistemic”:

The degree of a speaker's commitment to the truth of the proposition of an utterance regarding knowledge or a state of affairs that is true (or false) in the past, present, or future of the possible world.

To put it another way, the term “epistemic” refers to a speaker's different levels of certainty of what he/she states about knowledge or an event that was/is/will be true (or false) at a certain time. I will now demonstrate how to apply the concept to the utterance particle *laak3*.

The first three examples are extracted from the CYTV. The excerpt below is a monologue about a cooking recipe entitled “Xiao Long Bao Soup Dumpling Easy Recipe.”

(15) Background: The host is introducing to the audience the ingredients for Xiao Long Bao.

After doing so, she shows to the audience the steps for marinating the ground pork. Our focus will be the following utterances which are about adding sesame oil into the ground pork and mixing them together until the mixture appears smooth. She uses the utterance particle *laak3* when she thinks that she has stirred the mixture for about 5 or 6 minutes.

a. 加完 麻油 之後...
 gaaljyun4 maa4jau4 zilhau6
 add- sesame oil after
 ‘After adding sesame oil...’

b. 又 係 好似 咁樣 將 佢 咁樣...
 jau6 hai6 hou2ci5 gam3joeng6 zoeng3 keoi5 gam3joeng6
 again is like like this take it like this

攪 滑 佢。
 gaau2 waat6 keoi5
 stir smooth it
 ‘stir it together like this (until) it is smooth.’

- c. 攪到 佢 滑身。
gaau2-dou3 keoi5 waat6san1
 stir-until it smooth
 ‘Stir it until smooth.’
- d. 而家 攪到 佢 五 六 分鐘 嘞。
ji4gaal gaau2-dou3 keoi5 ng5 luk6 fan1zung1 laak3
 now stir-until it five six minute UP
 ‘(I have stirred about) five or six minutes now.’

In (15a) to (15c), the host demonstrates how to stir the ingredients. From the background, we know that the host has stirred the mixture for a period of time before the utterance (15d) where she stops stirring. In (15d), she states confidently that she has stirred the mixture for 5 to 6 minutes with the use of *laak3*. Interestingly, there is no timer set up in the video indicating how much time she has stirred. The *laak3* signifies a changed state of the speaker’s mind from the state of “not realizing the amount of time she has stirred” to “realizing the time she has spent”. The speaker has a high level of confidence that what she just said regarding the time spent on the state of affairs (in this case, the stirring event) is 5 to 6 minutes at that moment. Although she could be wrong and she may have stirred less than 5 minutes or more than 6 minutes (we do not know), she believes that it is true.

The next monologue is another cooking recipe entitled “Bitter melon beef Easy Recipe” drawn out from CYTV.

(16) Background: In this video, the host shows how to cook bitter melon with beef. After introducing all of the ingredients, the host demonstrates how to prepare the ingredients before cooking the dish. As she finishes up preparing the ingredients, she is about to show the audience how to marinate the beef. Here are the utterances:

- a. 一 個 嘅 紅蔥頭 啦
jat1 go3 ge3 hung4cung1tau4 laa1
 one CL LP shallot UP
 ‘A shallot.’

- b. 將 佢 切 片
zoeng3 keoi5 cit3 pin3
 put it cut slice
 ‘Cut it into slices.’
- c. 仲有 幾 片 嘅 紅蘿蔔 花 啦
zung6jau5 gei2 pin3 ge3 hung4lo4baak6 faal laal
 also few slice LP carrot flower UP
 ‘Also a few slices of carrots cut in decorative shapes.’
- d. 醃 牛肉 嘅 調味料 嘞
jip3 ngau4juk6 ge3 diu6mei6liu2 laak3
 marinade beef LP seasonings UP
 ‘The seasonings for marinating beef.’
- e. 兩 茶匙 生抽 啦
loeng5 caa4si4 saang1caul laal
 two teaspoon soy sauce UP
 ‘Two teaspoons of soy sauce.’
- f. 兩 茶匙 嘅 蠔油 啦
loeng5 caa4si4 ge3 hou4jau4 laal
 two teaspoon LP oyster sauce UP
 ‘Two teaspoons of oyster sauce.’
- g. 兩 茶匙 嘅 糖
loeng5 caa4si4 ge3 tong4
 two teaspoon LP sugar
 ‘Two teaspoons of sugar.’

In (16a) and (16b), the host demonstrates a shallot and shows how to cut it in slices to the audience. (16c) is another illustration of showing carrot slices. The speaker then shifts the topic to the seasonings for marinating beef in (16d) with the use of *laak3* at the end. The *laak3* here signifies a change of state—from “introducing ingredients” to “introducing seasonings for the beef”. With *laak3* in (16d), the speaker is certain about the occurrence of an upcoming event (introducing the seasonings for the beef). This is different from (15) above which focuses on the current state of the event. Utterances (16e) to (16g) indicate the event in response to (16d).

The next monologue extracted from CYTV is a product review entitled “Freezing spray to freeze foods! How does it taste then?”.

(17) Background: the host is displaying a new product from Japan and wants to demonstrate to the audience how powerful it is. The product, which is a sprayer, is claimed to be able to instantly freeze a cockroach to death with minus 75 degrees of cold air. It is also claimed that it is safe to use next to foods. After explaining so, the host decides to conduct an experiment testing the product to see whether it actually produces minus 75 degrees of cold air and is edible after spraying on a marshmallow. He takes out a marshmallow on a plate and gets ready to spray it. Here are the utterances:

- a. 呢 個 係 棉花糖, 脰 嘅, ok?
ne1 go3 hai6 min4faa1tong4 lam4 ge3 ok
 this CL is marshmallow soft UP ok
 ‘This is a marshmallow. It is soft (right now).’
- b. 係 嘞, 我哋 用 呢 一 支 嘢 呢 就
hai6 laak3, ngo5dei2 jung6 ne1 jat1 zi1 je5 ne1 zau6
 yes UP we use this one CL thing UP then
- 啲 落去 嘞。
zit1 lok6heoi3 laak3
 spray continue UP
 ‘Yes, we are going to use this thing to spray on it (the marshmallow).’
- c. 321 Ok, 零下 75 度 超級 凍。
321 Ok ling4haa6 75 dou6 ciu1kap1 dung3
 321 ok minus 75 degree super cold
 ‘3,2,1. Ok, minus 75 degrees! Super cold!’

After illustrating the marshmallow to the audience in (17a), the host states in (17b) that he is about to spray the marshmallow. Note that there are two utterance particles of *laak3*. I regard the *laak3* in *hai6 laak3* “yes” as an interjection, which is not the focus in this current discussion. The one (in boldface) we focus on here is at the very end of the utterance. Without

the *laak3*, it is a declarative sentence with no emphasis on the speaker's attitude. With the *laak3*, it reinforces the speaker's attitude that he is certain about the spraying-the-marshmallow event which will come true soon, without doubt. The *laak3* also signifies an incipient change of state from "not being ready to spray" to "being ready to spray." Utterance (17c) illustrates the occurrence of the event. He first counts down and then sprays the marshmallow.

The last two examples are excerpts from the HKCanCor. The following extract is a conversation from a radio broadcast between two hosts.

(18) Background: two hosts are talking about the new unemployment rate in Hong Kong.

They mention that more cases show that middle class employees were fired more often by their companies. They discuss a case of a man who was fired by an airline suddenly. As this man tried to find another job, he was not able to provide any qualifications and certificates because he forgot where he kept them. The two hosts then comment that it may be more difficult for the man to request a new proof because the school where the man attended is closed down now. One of the hosts (Speaker A) states, with *laak3*, that the man will be less competitive in such situation. Here are the utterances:

- a. C 執咗笠 嗰 嗰 間 學校。
zap1-zo2 lap1 laa3 go2 gaan1 hok6haau6
 bankrupt-PFV UP that CL school
 'That school is already closed down.'
- b. A 係 嘞。
hai5 laak3
 yes UP
 'Yes.'
- c. A 噉 即係 變咗 你 喺 求 職
gam2 zik1hai6 bin3-zo2 nei5 hai2 kau4 zik1
 then that is become-PFV you at seek job

 方面 呢, 即係 再 轉 職 呢,

<i>fong1min6</i>	<i>ne1</i>	<i>zik1hai6</i>	<i>zoi3</i>	<i>zyun2</i>	<i>zik1</i>	<i>ne1</i>
aspect	UP	that is	again	switch	job	UP
嗰	個	競爭	率	就	比較	
<i>go2</i>	<i>go3</i>	<i>ging6zang1</i>	<i>leot6</i>	<i>zau6</i>	<i>bei2gaau3</i>	
that	CL	competitive	rate	then	compare	
麻煩	啲	嘞。				
<i>maa4faan4</i>	<i>di1</i>	<i>laak3</i>				
troublesome	a-bit	UP				

‘Then, when you find another job, you will be less competitive which will make it difficult (for you to get a job).’

In the example above, the utterance particle *laak3* in (18b) is used as an interjection which shows agreement with what the previous speaker stated in (18a). This type of *laak3* is not the focus of this study. Let us shift our focus to (18c). Based on the background provided above, Speaker A (A) mentions that one may encounter difficulties when finding a new job, especially if the job applicant fails to provide proof of his/her qualifications. A then comments that such a job applicant will be less competitive than those who have proof of certifications. In fact, the utterance in (18c) is basically the speaker’s surmise without *laak3*. He has no evidence to support whether or not the job applicant will be less competitive. The role of the utterance particle *laak3* here is to emphasize the speaker’s attitude that he has a high level of commitment to the truth of the utterance regarding the state of affairs (job seeking) which could be true under certain circumstances. *Laak3* also signifies a changed state from the state of a job applicant “being competitive” to “being less competitive (Speaker A says it in 18c).”

Thus far, I have demonstrated examples with speakers’ high level of confidence. In the final example below, the speaker shows a rather low level of confidence.

(19) Background: The conversation is between two women. At one point, Women A (A) told Woman S (S) that she had not gotten paid for two months and would not get paid until late August. S thought that it sounded great because A would be paid for two months

which would be a nice birthday gift for her. But A stated that she was poor. S then questioned if A would ask her parents for money. A responded that she could use her government loan. S was surprised that A still had some money left from the loan. S then asked how much money speaker A borrowed¹⁵. Here are the utterances:

- a. S 你 借咗 幾多 錢 啊?
nei5 ze3-zo2 gei2do1 cin2 aa3?
 you borrow-PFV how many money UP
 ‘How much did you borrow then?’
- b. A 我 諗 - 我 - 我 - 正式 嘅 數字 我
ngo5 nam2 ngo5 ngo5 zing3sik1 ge3 sou3zi6 ngo5
 I think I I formal LP number I
 又 唔 係 好 記得 嘞。
jau6 m4 hai6 hou2 gei3dak1 laak3
 then not is really remember UP
 ‘I think...I..I don’t really remember the actual amount.’
- c. A 大約 有 八萬 蚊 度 啦,
daai6joek3 jau5 baat3maan5 man1 dou2 laa1
 about have eighty-thousand HK dollar around UP
 ‘I think it’s about eighty thousand Hong Kong Dollars.’
- d. A 未 夠 八萬 嘍。
mei6 gau3 baat3 maan6 ge2
 not yet enough eighty-thousand FP
 ‘Probably less than eighty thousand Hong Kong Dollars.’

When Woman A responded to Woman S, she said that she did not really remember how much she borrowed in (19b). She expressed certainty about forgetting the amount she took out by using *laak3* at the end of the utterance. The change of state here involves a change from the speaker who was “not aware of herself forgetting the amount she loaned” to the speaker who “realized that she did not remember the amount she took out.” Additionally, the speaker displays

¹⁵ There is a cultural difference in terms of talking about money. Unlike western culture, money talk is quite common in Asian culture. People from Asia frequently talk or ask about money, for example asking how much money someone currently makes or how much someone spent on furniture.

a high level of confidence in the proposition of the utterance regarding the event “failing to remember the amount” that is possibly true at that moment. De Haan (1999) states that “[e]pistemic modality evaluates evidence and on the basis of this evaluation assigns a confidence measure to the speaker’s utterance” (p.4). Indeed, the utterance (19b) can be evaluated into different levels as below:

- i) Woman A forgot how much she took out (high confidence).
- ii) Woman A possibly remembers how much she borrowed (low confidence).

To determine whether woman A has a high or low level of confidence, let us examine (19c) and (19d) above. She added, “I think it’s about eighty thousand Hong Kong Dollars,” and “Probably less than eighty thousand Hong Kong Dollars.” These add-on utterances serve as proof that the speaker’s use of *laak3* in (19b) demonstrates a low level of confidence to her utterance in this scenario.

I have thus far demonstrated the essence of the utterance particle *laak3* which conveys epistemic modality and signifies a change of state. The examples discussed above suggest that the epistemic sense of *laak3* concerns the speakers’ attitude toward the likelihood of state of affairs. This is quite different from the nature of the utterance particle *ge3*. In the following section, I will attempt to differentiate the epistemic senses encoded in *ge3* and *laak3*.

The Distinctions Between *Ge3* and *Laak3*

In light of the discussions earlier, we know that epistemic modality is embedded in the utterance particle *ge3* and *laak3*. They both convey a speaker’s affirmative attitude. Because of this same nature, one may question whether *ge3* and *laak3* can be used interchangeably or not.

To precisely answer this question, let us examine the following examples.

- (20) a. 唔 記得 咗 喇, 即係 總之 佢
m4 gei3dak1 zo2 laa1, zik1hai6 zung2zi1 keoi5

not remember PFV UP that is anyway she
 聖誕節 嗰 日 會 走 嘅。
*sing3daan3zit3 go2 jat6 wui5 zau2 **ge3***
 Christmas that day will leave UP
 ‘I don’t remember, but anyway, (I am certain that) she will leave on Christmas day.’

b. 唔 記得 咗 喇, 即係 總之 佢
m4 gei3dak1 zo2 laa1, zik1hai6 zung2zil keoi5
 not remember PFV UP that is anyway she
 聖誕節 嗰 日 會 走 嘞。
*sing3daan3zit3 go2 jat6 wui5 zau2 ***laak3***
 Christmas that day will leave UP
 ‘I don’t remember, but anyway, (I am certain that) she will leave on Christmas day.’

(21) a. 醃 牛肉 嘅 調味料 嘞
*jip3 ngau4juk6 ge3 diu6mei6liu2 **laak3***
 marinade beef LP seasonings UP
 ‘The seasonings for marinating beef.’

b. 醃 牛肉 嘅 調味料 嘅
*jip3 ngau4juk6 ge3 diu6mei6liu2 ***ge3***
 marinade beef LP seasonings UP
 ‘The seasonings for marinating beef.’

(22) a. 呢 個 係 棉花糖, 脰 嘅, ok?
*nel go3 hai6 min4faa1tong4 lam4 **ge3** ok*
 this CL is marshmallow soft UP ok
 ‘This is a marshmallow. It is soft.’

b. 呢 個 係 棉花糖, 脰 嘞, ok?
*nel go3 hai6 min4faa1tong4 lam4 **laak3** ok*
 this CL is marshmallow soft UP ok
 ‘This is a marshmallow. It became soft (now).’

In order to test whether the utterance particle *ge3* and *laak3* can be interchangeable or not, I have extracted some utterances from the previous discussions. The examples above are repeated from (8i), (16d), and (17a). The examples (20a) and (20b) are structurally the same with the exception of the use of the utterance particles *ge3* in (20a) and *laak3* in (20b). The whole

utterance becomes unnatural (indicated with an asterisk) after substituting *ge3* with *laak3* in (20b). This happens to be the same in (21b). The utterance has a sense of incompleteness after replacing *laak3* with *ge3*. However, such an unnatural sense does not occur in (22b) when *laak3* is used. By replacing *ge3* with *laak3* or vice versa, I discovered that both utterance particles can be interchangeable under certain circumstances. Let us focus on example (22) for a moment and then return to examples (20) and (21). There is no doubt that both *ge3* and *laak3* convey epistemic modality in (22a) and (22b). At first glance, they are indistinguishable. Pragmatically, however, they are different. Recall that I have mentioned in Chapter 4 that the utterance particle *ge3*, despite the epistemic sense, concerns a speaker's attitude toward his/her own prior knowledge (whether the speaker perceptually accesses knowledge or not). In contrast, the utterance particle *laak3* reflects a speaker's attitude with regard to the likelihood of a state of affairs (a change of state), as illustrated in previous section. Based on these explanations, we can interpret (22a) as "the speaker is certain and testifies that the marshmallow is soft with the support of prior knowledge." The example (22b) can be interpreted as "the speaker is certain and acknowledges that the marshmallow has gone through a change of state from the state of 'not being soft' to 'being soft.'" These interpretations further clarify one point that the utterance particles *ge3* and *laak3* are not interchangeable in the pragmatic level.

I will now return to examples (20) and (21) and explain the reason of unnaturalness. In (20), the utterance itself focuses on the speaker's knowledge of when the speaker's aunt would leave. As discussed earlier, the use of utterance particle *ge3* reflects a speaker's own knowledge, therefore, *ge3* is the appropriate one to use in (20). In (21), the utterance reflects the speaker's upcoming demonstration which can be regarded as a state of affairs. Hence, the utterance particle *laak3* is the most proper choice as it relates to a state of affairs. In this section, I have explicitly

demonstrated the differences between *ge3* and *laak3* in the pragmatic level. Table 4 below summarizes the distinctions between *ge3* and *laak3*.

Table 4

The distinctions between utterance particles ge3 and laak3

	<i>ge3</i>	<i>laak3</i>
Epistemic modality (certainty)	X	X
Access to prior knowledge (evidential support)	X	
Relates to a speaker's knowledge of a fact	X	
Relates to a state of affairs		X
Signifies a change of state		X

Discussion

In this section, I will discuss the frequency distribution of the utterance particle *laak3*. Table 5 and 6 below demonstrate the frequency distribution of *laak3* with the epistemic sense. It is important to separate those cases when *laak3* is used as an interjection (17b) or used to show agreement (18b), as these usages of *laak3* are not the focus of this study. Table 5 is the frequency distribution of *laak3* identified in CYTV. Interestingly, cooking has the highest frequency of *laak3* among the genres. One explanation of such high frequency can be that cooking, in general, relates to current relevance. Similar to the result of *ge3* in Table 2, complaint receives the least occurrence of *laak3*. Table 6 is the result from HKCanCor. Based on the numbers of occurrences themselves, non-radio broadcast seems to have more occurrences of *laak3*. But the percentage is only 0.77% in the genre. In contrast, radio broadcast has a slightly higher percentage of 1.55%. For Table 5 and 6, I receive a p-value ≤ 0.001 for both tables. The Cramer's V values are 0.14

and 0.03, respectively. These results suggest that there is an association between genres and the frequency of *laak3*, but the effect size is small.

Table 5

Frequency Distribution of Epistemic laak3 in CYTV

Genres	Total lines of utterances without epistemic <i>laak3</i>	Total lines of utterances with epistemic <i>laak3</i>
Complaint	1106	5
Product review	552	26
Cooking	1429	130
Make up	1117	52

Note: chi-square = 88.8 df = 3 p <= 0.001 Cramer's V = 0.14

Table 6

Frequency Distribution of Epistemic laak3 in HKCanCor

Genres	Total lines of utterances without epistemic <i>laak3</i>	Total lines of utterances with epistemic <i>laak3</i>
Radio broadcast	3358	52
Non-radio broadcast	12166	94

Note: chi-square = 16.6 df = 2 p <= 0.001 Cramer's V = 0.03

Summary

In this chapter, I have proposed an extended definition for the term “epistemic,” which concerns a speaker’s level of commitment to the meaning of a statement regarding the knowledge of a state of affairs that is possibly true at a certain time. I have also applied the definition to illustrate the sense of certainty of the utterance particle *laak3*. As discussed in the previous section, a speaker’s levels of certainty can be evaluated into a high (exemplified in 15-18) or a low (exemplified in 19) level of commitment. In addition to that, *laak3* also signifies a change of state. Lastly, I have attempted to distinguish the nature of the utterance particles *ge3*

and *laak3*. While they both convey epistemic modality, the utterance particle *ge3* pragmatically concerns a speaker's prior knowledge whether it is perceptually acquired or not (evidentiality). The knowledge can be identified through the clues in a conversational context. In contrast, the utterance particle *laak3* relates to a speaker's attitude with regard to the likelihood of the change of a state of affairs. In the next chapter, I will shift our discussion to the mirative meanings of the utterance particle *lol*.

Chapter 6

Utterance Particle *LoI*

The purpose of this chapter is to reveal the mirative meanings of the utterance particle *loI* which has not been discussed in the previous accounts. Similar to the structure of prior chapters, I will first provide a brief survey of early definitions and linguistic analyses of the utterance particle. I will then demonstrate the mirativity of *loI*. Finally, I will conclude with a discussion of the frequency distribution of *loI* and a summary.

Early Studies of the Utterance Particle *LoI*

*Definitions of the Utterance Particle *LoI**

The definitions of the utterance particle *loI* provided in Cantonese dictionaries and Cantonese coursebooks vary. Yiu, Auyeung, and Chow (ibid pp.130-131) illustrate that *loI* is generally used in rhetorical questions. Kiu (ibid p. 306) suggests three different definitions: *LoI* has a sense of calling out for someone, urging or hastening someone, and expressing obviousness. In Baker and Ho's (ibid p.141) Cantonese coursebook, they claim that *loI* is used to agree with another speaker. In their Cantonese grammar book, Matthews and Yip (ibid pp.405-406) classify the utterance particle *loI* as an evidential particle which has a sense of "what is said is self-evident."¹⁶ This sense can be thought of obviousness. They also add that *loI* may also express agreement, cooperation, and sympathy. Despite these various definitions and descriptions, they all suggest distinct functions of the utterance particle *loI* in different contexts.

Early Linguistic Analyses of the Utterance Particle *LoI*

We now turn to previous linguistic analyses of the utterance particle *loI*. In her description of *loI*, Kwok (1984 pp.58-59) states that *loI* "seems to give the reason for

¹⁶ Regarding the field of evidentiality, I personally think that "self-evident" does not fall into the general categories of evidentials such as sensory experience, hearsay, or inference. However, arguing whether the utterance particle *loI* should be categorized as an evidential particle or not is far from the scope of this present study. Therefore, I will simply follow Matthews and Yip's classification here.

something, or to point out what is obvious.” Other than the function of “obviousness,” Kwok provides no further insight on it.

In contrast, Luke’s (1990) use of conversation analysis reveals more properties¹⁷ of *lol*. According to him, the utterance particle *lol* is commonly identified in several conversational conventions. The first one is question-answer type. In this type, the utterance particle *lol* is used to reply to a speaker’s question in the previous turn in a conversation. Second, *lol* is generally found in reported speech. Third, the use of *lol* of a hearer also displays understanding of a speaker’s utterance in a preceding turn of an exchange. Despite these properties, the utterance particle *lol* can also be used for confirming what another party has just said and providing suggestions and advice. According to my data set, *lol* also occurs when a speaker experiences a sudden realization or a counterexpectation toward a state of affairs. I will return to this discussion in the next section.

Fung (2000), on the other hand, states that the utterance particle *lol* is never used to initiate a conversation due to its discourse-bound attribute. She suggests that *lol* “assumes the hearer should have a high level of knowledge of the proposition.” That is, a speaker considers that the knowledge is obvious and unquestionable. Besides, the use of *lol* generally accompanies impatient, indifferent, and reluctant attitudes, according to Fung (pp.111-119).

The utterance particle *lol* is also believed to convey expectedness (Hara and McCready 2015). This view corresponds to the feature of obviousness aforementioned above. That indicates common knowledge that exists between the speakers. A speaker’s use of *lol* presupposes that the hearer has already known the common ground which generally does not require further clarification of what is going on.

¹⁷ In his book, Luke explicitly states that Cantonese utterance particles have no semantic meaning (p.3). Unlike Kwok and Fung, he employs the term “property” instead of “meaning” or “semantic extension.”

I have thus far illustrated what has been suggested previously regarding the properties (or semantic contents) of the utterance particle *lol*. While there is no doubt that they are part of the nature of *lol*, there are still situations in which these functions do not describe.

The Mirativity of the Utterance Particle *Lo1*

In this section, I will reveal the mirative senses, as a pragmatic device, of the utterance particle *lol*. In this study, I will adopt Delancey’s (1997) use of the term “mirativity” and follow Aikhenvald’s (2012) two mirative values—sudden realization and counterexpectation. I propose that the utterance particle *lol* conveys mirative meanings. Especially when a speaker displays a sudden realization, or a speaker shows unexpected.

Sudden Realization

Sudden realization refers to a person who is suddenly aware of something as a fact. This occurs when there are at least two states of affairs being compared. The following example is extracted from the HKCanCor which shows a speaker’s sudden realization.

(24) Two women were talking about the school affiliated doctors. Speaker B (B) thought that the fee for a doctor’s visit was cheaper than outside the school and suggested to speaker A (A) to visit more. But A did not like the doctors at the school, especially her dentist. She had once had a teeth cleaning at school. She thought that it was a terrible experience because the dentist was not sufficiently careful or detailed. Speaker A was more impressed by the experience she had had with a previous dentist and expressed this with the use of *lol*.

a.	A	噉	呢	我	係	喺	屋企	附近	嗰啲
		<i>gam2</i>	<i>ne1</i>	<i>ngo5</i>	<i>hai6</i>	<i>hai2</i>	<i>nguk1kei5</i>	<i>fu6gan6</i>	<i>go2di1</i>
		then	UP	I	is	at	home	nearby	those
				私家	牙醫	度	洗	㗎。	
				<i>silgaal</i>	<i>ngaa4ji1</i>	<i>dou6</i>	<i>sai2</i>	<i>gaa3</i>	

private dentist there wash UP
 ‘I used to go to the dentist nearby my house.’

- b. B 喀, 喀。
haak3 haak3
 hmm hmm
 ‘Yes, yes.’
- c. A 噉 呢, 佢 洗 嗰 陣時 - 即係 佢
gam2 nel, keoi5 sai2 go2 zan6si4 - zik1hai6 keoi5
 then UP he wash that moment that is he
- 洗得 係 好 仔細 嚟, 同埋 好
sai2dak1 hai6 hou2 zai2sai3 lo1, tung4maai4 hou2
 wash-ADV is very detailed UP and very
- 細心 噉 幫 你 真係 洗清 - 洗
sai3sam1 gam2 bong1 nei5 zan1hai6 sai2cing1 - sai2
 attentive ADV help you really clean out wash
- 乾淨 呢 同埋 佢 唔 會 刮
gon1zing6 nel tung4maai4 keoi5 m4 wui2 gwaat3
 clean UP and he NEG will scratch
- 損 你啲 牙肉。
syun2 nei5dil ngaa4juk6
 damage your gum
 ‘When the dentist cleaned my teeth, he paid attention to small details. He won’t hurt your gums.’
- d. A 嘩 我 喺 學校 嗰 個 牙醫 洗
waal ngo5 hai2 hok6haau6 go2 go3 ngaa4ji1 sai2
 INTJ I at school that CL dentist wash
- 啊, 我 直程 感覺 到 佢 嗰 個
aal ngo5 zik6cing4 gam2gok3 dou2 keoi5 go2 go3
 UP I directly feel PRT he that CL
- 嗰啲 洗 嘢 嗰啲 儀器 呢 係 車落
go2dil sai2 je5 go2dil ji4hei3 nel hai6 cellok6
 those wash thing those tool UP is poke

我啲 牙肉 度 㗎。
ngo5di1 ngaa4juk6 dou6 gaa3
 my gum there UP
 ‘But the dentist at school, I definitely felt that his tools hurt my gums.’

According to the background, A first mentioned the school’s dentist who performed poorly. The speaker then complimented the other dentist’s outstanding performance (the one she had visited nearby her home, before visiting the school’s dentist) in (24c). The speaker then shifted back to the school’s dentist and explained how the dentist had hurt her gums. The whole description (both the school’s dentist and the private dentist) is a contrast and comparison setting. Let us first clarify the correct time sequence of the events in (25) below.

- (25) The time sequence of the events
- a. Speaker A visited the private dentist nearby her home (past)
 - b. Speaker A visited the school dentist who hurt her gums (past)
 - c. Speaker A then recalls and compares the performance of the private one with the school’s dentist (present, by the time of the conversation)

In (25), we can see that speaker A had a prior experience visiting the private dentist first in which she gained the knowledge of how the dentist performed. At that moment, she was not able to realize how good he performed. Later, she visited the school’s dentist who gave her an unpleasant experience. Because of this new experience, she was then able to compare both dentists’ performances and suddenly realized that the private one was surprisingly good which gives rise to the use of the utterance particle *lol* in (24c). Under this scenario, the *lol* has a mirative sense which implies “I just realized how good he (the private one) was.” Based on the context and the discourse exchange in (24), Speaker B did not seem to have the common

knowledge of knowing how the dentists performed. Therefore, the use of *lol* in (24c) hardly indicates “obviousness” or “expectedness.”

Counterexpectation

We now turn our focus on two other examples below, excerpted from the corpora, which display counterexpectation. This term refers to a fact or an outcome that is against a person’s original or existing expectation. The example below is a monologue from CYTV entitled “The most hateful behavior when traveling.”

(26.1) Background: The host was complaining about her friend’s use of social media while traveling. She felt ignored by her friend during the entire trip. After her mention of social media, she shifted the topic to new technology. She lamented that new technology can negatively impact young children. She pointed out that young children nowadays begin to heavily rely on technology, such as tablets or smartphones, almost as soon as they are born. She did not expect that parents handed an iPad over to their children when they asked for it. Here are the utterances:

- a. 嗰啲 BB 一 出世 喺 個 產房...
go2di1 BB jat1 ceot1sai3 hai2 go3 caan2fong2...
 those baby once birth at CL delivery room
 ‘Once they were born in the delivery room...’
- b. iPad 呢?
iPad nei1
 iPad UP
 ‘Where’s the iPad?’ (the speaker pretended to be a child asking for an iPad.)
- c. 咁就 畀 部 iPad 佢 嚟。
gam3zau6 bei2 bou6 iPad keoi5 lol
 then give CL iPad him UP
 ‘Then, (the parents) give an iPad to the child.’

Note that the speaker used irony in (26.1) to satirize parents who always give an iPad to their children whenever they ask for it. In (26.1c), the speaker displays unpleasant surprise

toward the new information about what children play with nowadays. This counterexpectation may stand out more in her later utterances in (26.2) below. According to her experience, she expected that children would occupy themselves with activities that do not involve technologies such as iPads.

- (26.2) a. 我 小朋友 嗰陣時 係 落街 玩 囉。
ngo5 siu2pang4jau5 go2zan6si4 hai6 lok6gaai1 waan2 lol
 I childhood that moment is go down play UP
 ‘When I was young, I went down (to the playground) to play.’
- b. 同 啲 朋友 一齊 玩。
tung4 di1 pang4jau5 jat1cai4 waan2
 with some friend together play
 ‘(I) played with friends.’
- c. 玩到 污糟邋遢。
waan2dou3 wulzou1laap6taap3
 play- filthy and dirty
 ‘(I got) very filthy and dirty.’
- d. 玩下 泥 啊, 淋下 雨 呀, 仆下,
waan2haa6 nai4 aa1, lam4haa6 jyu5 aa1, buk6haa6,
 play-a-bit mud UP soak-a-bit rain UP fall-a-bit
- 跌下 咁樣 囉。
dit3haa6 gam3joeng6 lol
 fall-a-bit like this UP
 ‘(Sometimes I) played with mud, (I) got rain soaked, and (I) fell down.’

Two utterance particles *lol* can be identified in (26.2a) and (26.2d). These usages correspond to the concept of “obviousness” illustrated in the preceding section. That is, in the speaker’s old knowledge, she expects to see children playing outside with their peers, which is the obvious, common knowledge. In contrast, the utterance particle *lol* in (26.1c) does not inherit this “obvious” sense. Rather, it conveys the speaker’s unexpectedness to the new

knowledge, that is, the children use of an iPad. The utterance in (26.1c), indeed, implies to the effect of “young kids using an iPad as a toy is not what I expected!”

The final example extracted from the HKCanCor below is a conversation between two friends.

(27) Background: Speaker B (B) mentioned that it was his great-grandmother’s birthday and he forgot to send her a birthday card. He decided to call her later. Speaker A (A) then asked how old B’s great-grandmother is. B responded that she is about ninety years old. A asked about her health. B replied that her health is not as good as before. B then mentioned his great-grandfather who seems to have better health than his great-grandmother. He later added that his great-grandfather’s health is also getting worse. But with the use of utterance particle *lo1*, B stated that, contrary to what one might expect, his great-grandfather still walks quite quickly.

a. B 太公 就 都 重 幾 精神,
taai3gung1 zau6 dou1 cung4 gei2 zing1san4,
 great-grandfather then also still quite energetic

不過 睇來 都... 即係 差過
bat1gwo3 tai2loi4 dou1... zik1hai6 caa1gwo3
 but looks like also that is worse than

前 幾 年 嚟 嘍。
cin4 gei2 nin4 gaa3 laa3
 before few year UP UP
 ‘My great-grandfather’s health is still good. But looks like...I mean (his health) is getting worse than few years ago.’

b. B 但係 行路 都 幾 快 嚟, 我
daan6hai6 hang4lou6 dou1 gei2 faai3 lo1, ngo5
 but walking also quite fast UP I

太公 都。
taai3gung1 dou1

great grandfather also
'My great-grandfather still walks quite fast though.'

- c. A 噉 都 幾 好 吖。
 gam2 dou1 gei2 hou2 aal .
 Then also quite good UP
 'Then, that's good (to hear).'

In (27a), B first stated that his great-grandfather is in good health. But he immediately turned down his previous comment and restated that his great-grandfather's health is not as good as several years ago. However, the speaker expresses unexpected attitude with the use of *lol* at the fact that his great-grandfather still walks relatively quickly in (27b). These two utterances of B display a contrast of two states of affairs (the word *daan6hai6* "but" in (27b) also signifies a contrast): degenerating health and walking speed. In general, one would expect that when a person's health gets worse, his/her physical competence decreases as well. That is, the overall physical competence is associated with a person's health. However, his great-grandfather's walking speed was not what speaker B expected. Based on the common knowledge, his great-grandfather should walk more slowly. Therefore, the features "obviousness" and "expectedness" of the utterance particle *lol* do not fit this conversational context. I conclude that, according to the context of (27), the utterance particle *lol* in (27b) embeds the mirative value—counterexpectation.

Discussion

The utterance particle *lol* with mirative meanings does not occur as many times as *ge3* and *laak3* in the data set. I was able to identify only a handful of occurrences. We can see this in Table 7 and 8 below. In Table 7, seven mirative *loIs* were identified in CYTV. Four out of seven occurrences were found in the genre complaint. The p-value in a chi-square test is 0.15. There is no significant association between the genres and the occurrence of mirative *lol*. In other words,

although complaint has the highest frequency of mirative *lol* among the genres, it does not conclude that there is a tendency of using mirative *lol* under speaker's emotional attitude. In Table 8, no mirative *lol* is found in radio broadcast. In contrast, non-radio broadcast has a frequency of 17. The P-value ($p = 0.03$) suggests that the use of mirative *lol* may be associated with genres, but the effect size is small according to the Cramer's V value (0.02). That is there is no strong association between the genres and the frequency of *lol*.

Table 7

Frequency Distribution of Mirative lol in CYTV

Genres	Total lines of utterances without mirative lol	Total lines of utterances with mirative lol
Complaint	1108	3
Product review	577	1
Cooking	1559	0
Makeup	1167	2

Note: chi-square = 3.76 df = 3 p = 0.29

Table 8

Frequency Distribution of Mirative lol in HKCanCor

Genres	Total lines of utterances without mirative lol	Total lines of utterances with mirative lol
Radio broadcast	3410	0
Non-radio broadcast	12260	17

Note: chi-square = 4.73 df = 1 p = 0.03 Cramer's V = 0.02

Fung (ibid) remarks that the use of utterance particle *lol* with speaker's emotional attitude tends to be "abused" by young Cantonese speakers (p.118). Therefore, I organized another table with *all* occurrences (overall usage) of utterance particle *lol* (this includes the mirative meaning of *lol*) in CYTV to investigate whether the use of *lol* in complaint outnumbers

other genres. Table 9 shows that complaint receives 61 occurrences of *lol* which is the highest frequency among the genres. The p-value is less than 0.001. This suggests that the overall usage of *lol* in CYTV has a relationship among the genres. Although Cramer’s V value (0.12) shows the effect size is small, the result somehow supports Fung’s remark that *lol* has a tendency of being used with emotional attitude. She also views this usage as a phenomenon of language change. My result, however, does not support this view at this stage. A diachronic corpus is needed in order to investigate the phenomenon.

Table 9

Frequency Distribution of Utterance Particle lol in CYTV

Genres	Total lines of utterances without <i>lol</i>	Total lines of utterances with <i>lol</i>
Complaint	1050	61
Product review	576	12
Cooking	1535	24
Makeup	1152	17

Note: Chi square: 66.29 df = 3 p <= 0.001 Cramer’s V = 0.12

Summary

In this chapter, I have revealed the mirativity of the utterance particle *lol*, which has the values of sudden realization and counterexpectation. These are exemplified in (23) to (24) and (26) to (27). I postulate that, under certain conditions, *lol* conveys mirativity rather than expressing obviousness of a fact and expecting that the listener possesses a high level of knowledge. The mirative meanings may be triggered when a contrast occurs in the context. Lastly, I have illustrated that the mirative *lol* is not as productive as *lol* which indicates “obviousness” and “expectedness” in my data.

Chapter 7

Conclusion

This thesis has attempted to untangle the differences between the utterance particles *ge3* and *laak3* in terms of epistemic modality and evidentiality and to reveal the mirative meanings of the utterance particle *lol*.

In Chapter 4, I propose that the utterance particle *ge3* embeds evidentiality (a speaker's access to prior knowledge) through implicature. In general, *ge3* conveys epistemic modality, which may or may not have supporting evidence. When no evidence is presented in a context (before or after an assertion), a speaker's commitment is based on his/her belief or conjecture. In contrast, when backup evidence emerges in a context, it implies that a speaker accesses his/her prior knowledge which supports his/her affirmative attitude. However, the indications in a context may not precisely pinpoint how a speaker acquired the knowledge earlier. It could be acquired by vision, hearing, touching, hearsay, or multiple means. It could also be direct or indirect. We do not know. But the clues in a conversational background suggest that a speaker somehow accesses his/her prior knowledge. Statistical results show that the use of *ge3* is associated with genres, but the effect size of the difference is small.

In Chapter 5, I focus on the epistemic sense of the utterance particle *laak3* and address the distinctions of certainty between *ge3* and *laak3*. In order to explain the phenomenon of *laak3*, I propose an extended definition of epistemic attitude which refers to a speaker's commitment about knowledge or a state of affairs that is possibly true in the past, present, or future at a certain time. This definition precisely illustrates the use of certainty in *laak3* which concerns the likelihood of a state of affairs. In addition to that, *laak3* also signifies a change of state. These senses partition the certainty encoded in *ge3* which concerns a speaker's affirmative attitude of

acquisition of knowledge. Hence, the differences between *ge3* and *laak3* can be summarized as follows: (1) *ge3* conveys epistemic modality and evidential meanings. Despite, the evidential implicature is highly context dependent. Moreover, *ge3* also concerns a speaker's access to prior knowledge. (2) *Laak3* conveys only epistemic certainty which relates to the likelihood of a state of an event and signals a change of state. Statistical results of *laak3* suggest that there is a relationship between the genres and the frequency of *laak3*, but the effect size is small.

I also reveal the mirative meanings of the utterance particle *lol* in Chapter 6. Although it is widely admitted that the use of *lol*, in general, expects a high level of knowledge from a hearer, this sense does not fall in in certain contexts. The data provided in Chapter 6 explicitly demonstrate that *lol* has mirative values of sudden realization and counterexpectation. These values can be identified when a speaker has a sudden realization or is unexpected. For statistical results, due to the low frequency of mirative *lol* in CYTV, there is no significant relationship between the genres and the use of mirative *lol*. Yet, the result for HKCanCor shows that the use of mirative *lol* is associated with the genres while the effect size is small. Furthermore, I also conducted another chi-square test for the use of the utterance particle *lol* in general, to investigate whether *lol* is affected by certain genres. The result supports Fung's account that *lol* tends to be used in the utterances with emotional attitude.

I acknowledge that there are limitations in this study. Despite the genres of data in CYTV, with the sample size of only one or two YouTubers per genre, I can hardly determine whether the usages of the utterance particles are associated with the specific YouTubers analyzed. Moreover, other genres such as travelling, game reviews, or language learning are not included in this study. Also, data from other sources, for example movies, are not used. With limited data, it is impossible to conclude that certain utterance particles tend to be used in

specific genre. For further investigation and testing, I suggest compiling a comprehensive data set that contains more genres of data. On the other hand, there are still a number of under-explored Cantonese utterance particles, more studies of these particles are needed in terms of evidentiality, epistemic modality, and mirativity.

Lastly, the findings of this study also have some pedagogical implications for teaching practice and instructional planning. Language instructors can make use of the findings in helping language learners to grasp the distinctions of the utterance particle *ge3* and *laak3* and the mirative meanings of the utterance particle *lo1*. Aside from that, the instantiations demonstrated in this study can also be widely used in a classroom setting.

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Appendix A

Romanization systems (extracted from Matthews and Yip 2011 pp.461-463)

Initial consonants

<i>Yale</i>	<i>IPA</i>	<i>LSHK (Jyutping)</i>
b	p	b
p	p ^h	p
m	m	m
f	f	f
d	t	d
t	t ^h	t
n	n	n
l	l	l
g	k	g
k	k ^h	k
ng	ŋ	ng
h	h	h
j	ts	z
ch	ts ^h	c
s	s	s
y	j	j
gw	k ^w	gw
kw	k ^{wh}	kw
w	w	w

Final consonants

<i>Yale</i>	<i>IPA</i>	<i>LSHK (Jyutping)</i>
m	m	m
n	n	n
ng	ŋ	ng
p	p ^ˀ	p
t	t ^ˀ	t
k	k ^ˀ	k

Vowels

<i>Yale</i>	<i>IPA</i>	<i>LSHK (Jyutping)</i>
i	i	i
i (before ng, k)	ɪ	i
yu	yɥ	yu
u	u	u
u (before ng, k)	ʊ	u
e	ɛ	e
o	ɔ	o
eu	œ	oe
eu (before n, t)	ø	eo
a (with final consonant)	ɐ	a
a (no final consonant)	a:	aa
aa	a:	aa
iu	iu	iu
eui	øy	eoɪ
ui	uy	ui
ei	ei	ei
oi	ɔy	oi
ou	ou	ou
ai	ɛi	ai
au	ɐu	au
aai	a:i	aai
aau	a:u	aau

Tones (illustrated with the syllable u)

<i>Yale</i>	<i>IPA</i>	<i>LSHK (Jyutping)</i>	<i>Pitch contour</i>
ū	55	u1	high level
ù	53	u1	high fall
ú	25	u2	high rise
u	33	u3	mid level
ùh	21/11	u4	low fall
úh	23	u5	low rise
uh	22	u6	low even

Appendix B

Table for source of knowledge (extracted from Hanks 2018, p.6)

Access to information

perceptual access to event or object
cognitive access to event or object
hearsay
common sense

Epistemic modality

confirmative
certain
probable
inferential
conjectural
non-confirmative

Warrant for knowledge

obligation to know
right to know
ownership of knowledge
