

# 上海交通大学

SHANGHAI JIAOTONG UNIVERSITY

## 学士学位论文

THESIS OF BACHELOR



论文题目：A Discussion on Tonhauser's Theory:

Diagnosing At-Issueness in Mandarin Chinese Utterance

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THESIS OF BACHELOR



论文题目：中文特定语境中 At-Issue-ness 的研究  
——对 Tonhauser 理论的探讨

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## 摘要

At-issue-ness (在议性。为了切合标题,下文中在议性采用英文表达)属于语用学研究的范畴,是近几年来逐渐发展起来的一个相对较新的语言学概念。这个概念的提出有效地避免了一些语用学范畴内的含义分类之间的争议,尤其是前提 (presupposition) 和规约含义 (conventional implicature) 之间的区分。这一概念的提出同样也解答了一些特定命题 (proposition) 所独有的投射 (projection) 特征产生的原因。作为一个新的语言学概念, at-issue-ness 仍处于发展阶段,缺乏大量的学术研究,因此还未能享有有力的理论支持。

因此,本论文将 at-issue-ness 定为论文研究方向,是希望能够对 at-issue-ness 这一较新的领域进行进一步探索。同时,本论文将基于 Tonhauser 提出的理论原型,通过对中文语言环境中的在议内容 (at-issue content) 的研究和诊断,从实用角度对 at-issue-ness 进行研究。在进行诊断实践前, Tonhauser 的理论和方法论将会被转化为可以应用于中文语境的方法,并确定待研究诊断的中文语境。

此外,本论文还希望能够发现 Tonhauser 所确立的诊断方法中的潜在问题,以及可能存在的诊断失灵,从而能够对其方法论进行改进。通过在中文语境中诊断方法论的可行性,本文力图建立一套新的诊断方法以适应中文的语言环境,同时试图探索这套诊断方法是否存在新的功用,从而扩宽 at-issue-ness 研究的实用维度。

**关键词:** 在议性、语用学、投射、诊断方法

## ABSTRACT

At-issueness is a relatively new linguistic concept which has been developing during recent years in the field of Pragmatics. It is an efficient method to avoid the controversy over the classification of meanings, especially the distinction between presuppositions and conventional implicatures. It also answers to the projection properties of certain propositions. As a new linguistic concept, at-issueness is still in the developing period and does not enjoy powerful theoretical support from abundant academic works.

Therefore, setting at-issueness as the topic of this dissertation is based on the hope that the field of at-issueness could be added with more information and findings. This dissertation takes a practical step towards at-issueness, and aims to provide a thorough diagnostics of the at-issue contents in the Chinese language based on Tonhauser's theory. To convert Tonhauser's theory into practical method for Chinese at-issue content diagnostics, content types in Chinese are determined before the application of diagnostics.

In addition to that, this dissertation also seeks to identify potential problems or dysfunctions of the previous diagnostics. With problems identified, certain improvements could be made on the diagnostics to fit into the Chinese language environment. Tonhauser established a set of diagnostics to determine the at-issue content in an utterance. This dissertation hopes to establish a new set of diagnostics after justifying the validity of the diagnostics in Chinese, and to see if there are other practical functions of the diagnostics, which might add practical value to the at-issueness.

**Keywords:** At-issueness, Pragmatics, projection, diagnostics

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## Chapter 1. Introduction

In 2010, Simons, Tonhauser, Beaver and Roberts proposed a detailed definition on the concept of at-issueness, which provides a new way of classifying the meanings. Here in this dissertation the classification of meanings will not be discussed. Instead, the focus of this dissertation is concerned with the application of at-issueness in Mandarin Chinese.

After Simons et al. (2010), Tonhauser (2011) went to the detailed application of the at-issueness definition to justify at-issue contents in English, therefore reinforcing the validity of the definition. In his diagnostics, he identified 7 major types of contents for testing and drew conclusions from the results of these contents. Inspired by his diagnostics, in this dissertation I intend to diagnose several types of Chinese contents to justify the validity of at-issueness definition in the Chinese language environment. Based on the content types proposed by Tonhauser, I made some adjustments to fit into the Chinese language and concluded four major content types: Nominal Appositive Implicature, Demonstrative NP Implicature, Possession Implicature, and Pre-state Implicature.

This dissertation aims to justify the validity of Tonhauser's diagnostics in Chinese and to make improvement on his diagnostics. In addition, I also hope to seek practical use of the diagnostics than just identifying the at-issue contents. The main body of the dissertation will be divided into three main sections. The first section is the literature review of the at-issueness concept; the second section is the introduction of the at-issueness properties and the methodology of the diagnostics. The third section is the main section, which focuses on diagnosing different Chinese types of content for projection. The detailed application of the diagnostics will be mainly focused on two Chinese types of content: Possession Implicature and Pre-state Implicature. Diagnostics of the other two types will be presented in the form of tables. Following the main body will be the further discussion part and the conclusion.

## Chapter 2. Literature Review

At-issueness is a concept closely related to pragmatics in linguistics. Pragmatics has been claimed to be the study of “invisible” meaning, or how we recognize what is meant even when it isn’t actually said or written (Yule, 2006:112). The so-called “invisible” meanings are those shared assumptions and expectations in speaker’s utterance, which function as pre-conditional or attached propositions for communicative intention (Huang, 2007:279-283). According to the semantic value of these non-intended propositions (Hogan, 2011:31), or projective meanings (Simons et al., 2009:1), linguists have classified them as presupposition and conventional implicature, although there is a great deal of disagreement over their definitions. Previously, conventional implicature enjoys an awkward position since it was first coined by Grice (1975). Grice did not give out a clear definition on conventional implicature (CI) and since then conventional implicatures have caused many disputations. It was classified as a part of presupposition by Karttunen and Peters (1979), and was even denied by Bach (1999) as “something else”. However, Potts (2005) disagrees with the previous studies and establishes a formal system for conventional implicatures (CIs) to distinguish them as an independent class of meanings.

In recent years, the concept of at-issueness has been put forward in analyzing the relation between projective contents and the main point (i.e. question under discussion, QUD) (Roberts, 1996). Here the projective content refers to the implication which “survives as an utterance implication when the expression that triggers the implication occurs under the syntactic scope of an entailment-cancelling operator. (Simons et al., 2010)” Therefore, the feature that a proposition cannot be projected is called at-issueness. This concept was firstly recognized by Potts (2005) to differentiate conventional implicatures from other meanings, especially from presuppositions, and later further developed by Simon et al. to discuss the projection properties. This avoids having to distinguish between the controversial definitions of presuppositions and conventional implicatures. Furthermore, Tonhauser (2011) has developed a set of diagnostics to judge between at-issue meanings and not-at-issue meanings, with the term “at-issue” defined as follows:

- (1) Definition of at-issueness (Simons et al., 2010: 323)
- a. A proposition  $p$  is at-issue if the speaker intends to address the QUD via  $?p$ .
  - b. An intention to address the QUD via  $?p$  is felicitous only if:
    - i.  $?p$  is relevant to the QUD, and
    - ii. the speaker can reasonably expect the addressee to recognize the intention.

Here in the definition,  $?p$  represents the interrogative form of  $p$ . Though Simons et al. have defined at-issueness with clear expressions, the process of distinguishing at-issue

contents from not-at-issue contents still need to be clarified with detailed methodology and diagnostics. Tonhauser (2011) has proposed the methodology of identifying at-issue contents. However, as Chinese is a distant language from English, the validity of the methodology needs to be verified.

As mentioned in the introduction, in this dissertation, the at-issueness phenomenon in Mandarin Chinese will be investigated and Tonhauser's diagnostics will be applied to the 2 sets of Chinese utterance respectively. As a prerequisite to applying the tests to Mandarin utterance, then, section 3 below is devoted to an elucidation of the properties of at-issueness and the correspondent diagnostics.



## Chapter 3. Properties and Methodology of the Diagnostic

### 3.1 Three Properties of at-issue content

To improve the previous study on at-issuehood from Simon et al., Tonhauser (2011) induces three main properties of at-issue content, which are related to the “at-issue” definition in section 2 (1). They are presented as follows:

- I. At-issue content can be directly assented or dissented with; (Property I, or PI)
- II. At-issue content addresses the question under discussion; (Property II, or PII)
- III. At-issue content determines the relevant set of alternatives. (Property III, or PIII)  
(Tonhauser, 2011)

These properties help formulate the methodology of the diagnostic for at-issue contents. Property I seems to have no overt correlation with the at-issue definition, nevertheless, it is the most crucial characteristic of the at-issue content. According to Simons et al. (2010), a projective content, or a not-at-issue content, can survive embedding under operators like negation or modal, which makes it clear, between the lines, that at-issue content cannot survive. Therefore, it makes sense that an addressee can accept (assent) or reject (dissent) the at-issue content of a speaker's utterance (Tonhauser, 2011).

Property II, obviously, is the defining feature of at-issue content, because it sharply points out the focus/core of at-issuehood—question under discussion (QUD), a semantic question which corresponds to the current discourse topic (Roberts 1996). It determines the sole responding content that makes sense. Take the utterances below as an example, B1's answer in (2) is acceptable since it gives a straightforward response to the QUD—“the current location where Sam is”, while B2's answer is unacceptable since it ignores the explicitly given QUD, giving seemingly unrelated information.

- (2) QUD: Where is Sam now?  
B1 : Sam is in London. → at-issue  
B2 : Sam was in London before. → not at-issue

(Simons et al., 2010)

Similar to PII, Property III emphasizes the importance of QUD in at-issue contents. However, PIII's core lies in its recognition of relevant alternatives to the QUD. According to Simons et al.(2010), “utterances can address the QUD in a variety of ways... Answers can be complete or partial: A complete answer eliminates all

alternatives but one; a partial one eliminates at least one alternative”. For this reason, a sole content to a specific QUD is compulsory while a sole answer is not necessarily required. For example, those answers of B1, B2, B3 and B4 in (3) are all acceptable in response to A’s question no matter whether they are complete or partial. In other words, they are “members” of the relevant set of alternatives to the QUD.

(3) A: Which students are defending this semester?

B1: Francesco, and maybe some others. (Simons et al., 2010)

B2: As far as I know, Jane and David.

B3: Francesco, Jane, David, Lily, and that’s all.

B4: Sorry, I have no idea.

(Invented by native Mandarin speakers)

### 3.2 Methodology for Tonhauser’s diagnostics

Based on the properties, Tonhauser (2011) develops three parallel sets of diagnostics for identifying at-issue and non-at-issue meanings, all of which have already been testifying in the literature. They are categorized as follows:

Set I	D#1a	Diagnostic #1a: Intuitions about assent/dissent
	D#1b	Diagnostic #1b: Assent/dissent with positive continuation
	D#1c	Diagnostic #1c: Assent/dissent with adversative continuation
Set II	D#2	Diagnostic #2: Focus on question under discussion
Set III	D#3a	Diagnostic #3a: Positive/negative answer with positive continuation
	D#3b	Diagnostic #3b: Positive/negative answer with adversative continuation

Table 1: Tonhauser’s Diagnostics

(Tonhauser, 2011, D#2 self-summarized)

Row 2 of Table Diagnostics shows each corresponding abbreviation of the diagnostics, which have been divided into three sets: D#1a, D#1b, and D#1c are in Set I, D#2 in Set II, and Set III is composed of D#3a and D#3b. Consistently, Set I is devised on the basis of PI, Set II and Set III rely on PII and PIII respectively.

In Set I, the three diagnostics rely on the native speaker consultants’ judgment about what is directly assented or dissented with. In particular, results of D#1a are based on the consultants’ intuitions, while D#1b and D#1c explore the acceptability of responding utterances conforming to certain language’s natural usage. In Set II and Set III, several optional answers are given to the same target sentence. Likewise, consultants’ judgments of applicability are the determining factors in reaching conclusions.

Therefore, the diagnostics require several native speaker consultants to reach to a certain conclusion. For the diagnostics in this dissertation, the number of the consultants is set to be 4. Target sentences of each diagnostic and a comprehensive

illustration will be presented in section 4.

## Chapter 4. Diagnosing At-Issuehood in Mandarin Chinese

In this section, four kinds of Mandarin Chinese utterances are applied with the diagnostics to figure out the (not)-at-issue content. There are four non-trained native Mandarin speakers, as mentioned above, serving as consultants to judge the at-issue content.

### 4.1 Possession Implicature

#### Target sentence:

Xiaoming de qianbao shi hongse de.

Xiaoming GEN purse be red \*

“Xiaoming’s purse is red.”

In the target sentence, there are two propositions.

**Proposition 1:** Xiaoming has a purse.

**Proposition 2:** The purse is red.

Through diagnosing, which one of the two propositions is the at-issue content and which one is not in the utterance of QUD is expected to be determined.

#### #1a Intuitions about assent/dissent

(4) A: Xiaoming de qianbao shi hongse de.

Xiaoming GEN purse be red \*

“Xiaoming’s purse is red.”

B1: shi de.

B2: bu shi.

be

NEG be

“Yes.”

“No.”

The four consultants were asked to give out their judgments on which proposition of the utterance A was assented by B1 and dissented by B2. All of them reached to a consensus that B1’s utterance was to indicate that Xiaoming’s purse was red, whilst B2 also dissented the second proposition, which is *The purse is red*. Moreover, none of the consultants referred to the first proposition in A’s utterance, which is *Xiaoming has a purse*. From their neglect of the proposition 1, it can be concluded that the proposition that *The purse is red* is the at-issue content of A’s utterance, and the proposition that *Xiaoming has a purse* is the not-at-issue content of A’s utterance. Thus, diagnostic #1a is capable of distinguishing the at-issue content from the not-at-issue one.

### #1b Assent/dissent with positive continuation

(5) A: Xiaoming de qianbao shi hongse de.

Xiaoming GEN purse is red \*

“Xiaoming’s purse is red.”

B1: shi de, ta shi hongse de.

be \*, 3sg be red \*

“Yes, it is red.”

B2: bu shi, ta bu shi hongse de.

NEG be, 3sg NEG be red \*

“No, it is not red.”

B3: #shi de, Xiaoming you yige qianbao.

be, Xiaoming have a purse

“Yes, Xiaoming has a purse.”

B4: #bu shi, Xiaoming mei you qianbao.

NEG be, Xiaoming NEG have purse

“No, Xiaoming doesn’t have a purse.”

In the diagnostic #1b, the target sentence was kept in its original positive form and utterances concerning the two propositions were created. The four consultants all claimed that the utterances by B1 and B2 acceptable. Considering the utterances by B1 and B2 were created to correlate with proposition 2, this judgment suggests that the second proposition, *The purse is red*, is the at-issue content of A’s utterance.

However, opinions differed on the utterances by B3 and B4. When asked about B3, all consultants regard it unacceptable and odd in Mandarin Chinese idiomatic usage. But B4 caused a slight confusion. Most consultants (three out of four) judged it unacceptable, while the remaining one found it somewhat acceptable, though not quite plausible. She said that few people make utterance like B4 for it seemed very odd. But B4 still made sense to her as long as this utterance was made. All in all, such utterance was not unacceptable but unpopular. Though a disputation was aroused here, it was agreed by all consultants that the utterances B3 and B4, which correlated to the first proposition *Xiaoming has a purse*, were overall not acceptable.

To sum up, for diagnostic #1b, utterances related to proposition 2 were judged to be reasonable responses to the target sentence, while utterances related to proposition 1 were considered not make sense in general. This distinction justifies that proposition 2 is the at-issue content, while proposition 1 is the not-at-issue content. Therefore, diagnostic #1b also works for the possession implicature structure in Chinese.

### #1c Assent/dissent with adversative continuation

(6) A: Xiaoming de qianbao shi hongse de.

Xiaoming GEN purse is red \*

“Xiaoming’s purse is red.”

B1: #shi de, dan ta de qianbao bu shi hongse de.

be \*, but 3sg GEN purse NEG be red \*

“Yes, but his purse is not red.”

B2: #bu shi, dan ta de qianbao shi hongse de.

NEG be, but 3sg GEN purse be red \*

“No, but his purse is red.”

B3: #shi de, dan ta mei you qianbao.  
be \*, but 3sg NEG have purse  
“Yes, but he doesn't have a purse.”

B4: bu shi, dan ta you ge qianbao.  
NEG be, but 3sg have a purse  
“No, but he has a purse.”

In diagnostic #1c, B1 and B2 are responses corresponding to proposition 2, and B3 and B4 correspond to proposition 1. Four consultants were required to judge which of the utterances from B1 to B4 are acceptable, and which are not. All consultants consistently considered utterances from B1 to B3 unacceptable, and the only acceptable response was B4. This judgment made it impossible for diagnostic #1c to distinguish between the two propositions, thus the at-issue content could not be identified either. I was about to conclude #1c unable to distinguish at-issue contents from not-at-issue ones in the Chinese language. However, on second thought, I found #1c might work if proposition 1 was slightly modified. (The target sentence and the basis for creating the discourse remained the same.)

**Modified Proposition 1:** The purse belongs to Xiaoming.

**Proposition 2:** Xiaoming's purse is red.

(7) A: Xiaoming de qianbao shi hongse de.  
Xiaoming GEN purse is red \*  
“Xiaoming's purse is red.”

B1: #shi de, dan ta de qianbao bu shi hongse de.  
be \*, but 3sg GEN purse NEG be red \*  
“Yes, but his purse is not red.”

B2: #bu shi, dan ta de qianbao shi hongse de.  
NEG be, but 3sg GEN purse be red \*  
“No, but his purse is red.”

B3: shi de, dan na qianbao bu shi Xiaoming de.  
be \*, but DET purse NEG be Xiaoming GEN  
“Yes, but the purse doesn't belong to Xiaoming.”

B4: bu shi, dan na qianbao shi Xiaoming de.  
NEG be, but DET purse be Xiaoming GEN.  
“No, but the purse belongs to Xiaoming.”

After the first proposition was modified, the four consultants were asked again to give intuitions about the 4 utterances responding utterance A. Surprisingly, this time the two propositions can be distinguished. All consultants agreed that B1 and B2 are unacceptable responses, which made proposition 2 the at-issue content, while B3 and B4 are acceptable responses, which made proposition 1 not-at-issue. However, two consultants commented that despite being acceptable, the utterance by B4 was a bit redundant because “the purse belongs to Xiaoming” was automatically acknowledged by the hearers.

The diagnostic #1c showed different capabilities of identifying the at-issue content in two different propositions aroused my attention. The reason accounting for this difference will be discussed in the further discussion part.

## #2 Focus on question under discussion

The diagnostic #2 focuses on the QUD. According to Tonhauser (2011), for this diagnostic, a discourse in which the utterance A should be two wh-questions regarding each of the proposition, and the responses should convey entailments containing the at-issue content and the not-at-issue content. If the responses make sense, the corresponding proposition is at-issue, and vice versa. Below are two examples in the Paraguayan Guaraní language:

(8) A: M áva-pa o-monda che-pirapire?

who-QU A3-steal B1sg-money

“Who stole my money?”

B1: Pe kuimba'e, che-sy angiru, o-monda nde-pirapire.

that man B1sg-mother friend A3-steal B2sg-money

“That man, my mother's friend, stole your money.”

B2: Pe kuimba'e, o-mond á-va nde-pirapire, ha'e che-sy angiru.

that man A3-steal-RC B2sg-money pron.S.3 B1sg-mother friend

“That man, who stole your money, is my mother's friend.”

(9) A: M áva-pa nde-sy angiru?

who-QU B2sg-mother friend

“Who is your mother's friend?”

B1: As in (8)

B2: As in (8)

(Tonhauser, 2011)

Here in (8) and (9), the two propositions are:

**Proposition I:** That man stole your money.

**Proposition II:** That man is my mother's friend.

According to Tonhauser, (8)A is the utterance containing proposition I, while (9)A is the utterance containing proposition II. To determine which proposition is at-issue, he created two responses as shown in B1 and B2. B1 is the original target sentence which hypothesizes Proposition I as at-issue, and B2 is said to be an utterance that hypothesized Proposition II as at-issue.

In Tonhauser's diagnostic #2, B1 is solely acceptable responding to (8)A, while B2 is solely acceptable responding to (9)A. Therefore, the (not-)at-issue content is distinguished.

However, this method is not suitable for Chinese. This is mainly because of the difference between English and Chinese, i.e. the difference in word order. The detailed reasons accounting for this will be discussed in the further discussion section.

Under the circumstance, to improve the diagnostic #2 to fit it into Chinese, I modified the responses and set the propositions themselves as B1 and B2 for the

consultants to judge:

(10) A: Xiaoming you shenme?

Xiaoming have what

“What does Xiaoming have?”

B1: Xiaoming you yige qianbao.

Xiaoming have a purse

“Xiaoming has a purse.”

B2: # qianbao shi hongse de.

purse be red \*

“The purse is red.”

(11) A: Xiaoming de qianbao shi shenme yanse de?

Xiaoming GEN purse be what color \*

“What color is Xiaoming's purse?”

B1: #As in (10)

B2: As in (10)

With the new version of diagnostic #2, consultants were able to give out their intuitions on the two sets of utterances above. In (10) and (11), there occurred no disputation and all consultants reached to the consensus that B1 was a solely acceptable answer to (10)A, while B2 only made sense responding to (11)A. This distinction suggests that (11)A is the at-issue content of B2, and (10)A is the not-at-issue content of B2. Considering (11)A is the wh-question derived from the target sentence, and B2 is derived from Proposition 2, it can be concluded that the second proposition, *The purse is red*, is the at-issue content of the target sentence. Therefore, the at-issue content is identified and diagnostic #2 is proved to be valid.

However, when consulting on the diagnostic #2, four consultants pointed out that the setting of the utterances is redundant. In addition, the diagnostic requires a hypothesis of the at-issue content before the judging process. Thus, this diagnostic needs further improvements or elimination to identify at-issue contents in Chinese. This will be discussed later in the further discussion part.

The detailed process of applying the remaining diagnostics is to be omitted here and is summarized into the table below. In the following Chinese content structure, the pre-state implicature, the application of diagnostic will start from #1c and end at #3b.

Ability to identify at-issue-ness	#1a	#1b	#1c	#2	#3a	#3b
Possession Implicature	√	√	X	√	√	X
Possession Implicature (Mod.)	√	√	√	√	√	X

Table 2: Results for the Possession Implicature

## 4.2 Pre-state Implicature

In pre-state implicature, we have chosen the trigger *not...anymore* in Mandarin as our target sentence.

**Target sentence:**

Xiaoming bu zai chouyan le.  
Xiaoming NEG again smoke  
“Xiaoming doesn't smoke anymore.”

(Invented by native Mandarin speaker)

In this target sentence, there exist two propositions:

**Proposition 1:** Xiaoming doesn't smoke anymore.

**Proposition 2:** Xiaoming used to smoke.

Here the diagnostics from #1c to #3b will be applied to these two propositions in the following paragraphs. Ideally, the processes will be able to distinguish the at-issue content from the not-at-issue content in the target sentence.

**#1c Assent/dissent with adversative continuation**

(12) A: Xiaoming bu zai chou yan le.

Xiaoming NEG again smoke

“Xiaoming doesn't smoke anymore.”

B1: #shi de, dan ta yiqian (jiu) bu chouyan.

be \*, but 3sg past (\*) NEG smoke

“Yes, but he didn't use to smoke.”

B2: #shide, dan ta haizai chou.

be, but 3sg sill smoke

“Yes, but he still smokes.”

B3: ?bu shi, dan ta yiqian chouguyan.

NEG be, but 3sg past smoke-PP

“No, but he used to smoke.”

B4: #bu shi, dan ta bu zai choule.

NEG be, but 3sg NEG again smoke

“No, but he didn't smoke anymore.”

In diagnostic #1c, the result is quite different from that in English. In English, the (not)-at-issue contents can be distinguished in the trigger *not...anymore* after consulting five British English native speakers. In Mandarin Chinese, however, it seems that the (not)-at-issue contents can hardly be determined. Three consultants judged none of the responses to A's utterance acceptable, while the other consultant thought B3 made sense if the response was dissenting the fact rather than the opinion. Regardless of the disagreement, the testing at least shows that the (not)-at-issue contents can't be distinguished with diagnostic #1c.

As for the response accounting for B3's making sense, some interesting features are found as regards of Mandarin's idiomatic usage may influence the judgment. The reason why judgments on B3 were mixed is probably that: with the appearance of “but”, the distinction between the negation of the fact and the opinion become vague in Mandarin. Another interesting phenomenon is that in the utterance of B1, the expression is unacceptable without the word in blankets. The word “jiu” is a kind of modal particle, which helps expressing the tone or manner of one's utterance in



Mandarin. If “jiu” is added here, then the utterance of B1 will become completely acceptable.

## #2 Focus on question under discussion

As mentioned in the Possession Implicature section, the diagnostic #2 has been justified to fit into the Chinese language environment.

In (13), the proposition that *Xiaoming doesn't smoke anymore* is hypothesized to be the at-issue content. And in (14), the proposition which conveys that *Xiaoming used to smoke* is presumed to be at-issue.

(13) A: Xiaoming bu zai zuo shenme le?

Xiaoming NEG again do what  
“What doesn't Xiaoming do anymore?”

B1: Xiaoming bu zai chouyan le.

Xiaoming NEG again smoke  
“Xiaoming doesn't smoke anymore.”

B2: #Xiaoming yiqian chouguoyan.

Xiaoming past smoke-PP  
“Xiaoming used to smoke.”

(14) A: Xiaoming yiqian zuoguo shenme?

Xiaoming past do-pp what  
“What did Xiaoming use to do?”

B1: #As in (13)

B2: As in (13)

Concerning the two sets of utterances, four consultants consistently judged B1 acceptable in (13) and unacceptable in (14), and judged B2 unacceptable in (13) but acceptable in (14). Their judgments support the previous hypothesis that in (13), the proposition that *Xiaoming doesn't smoke anymore* is at-issue, and in (14) the proposition that *Xiaoming used to smoke* is the at-issue content of A's utterance. Take the target sentence into consideration, it can be concluded that Proposition 1 is the at-issue content, while Proposition 2 is the not-at-issue content. Therefore, diagnostic #2 works for the pre-state implicature, but still claimed redundant by the consultants.

## #3a Positive/negative answer with positive continuation

In diagnostic #3a, the speaker A utters a general question derived from the target sentence, and the addressee B answers with positive continuation as shown below.

(15) A: Xiaoming bu zai chouyan le ma?

Xiaoming NEG again smoke QUES  
“Doesn't Xiaoming smoke anymore?”

B1: shi de, Xiaoming bu zai chou le.<sup>①</sup>

be \*, Xiaoming NEG again smoke  
“Yes, Xiaoming doesn't smoke anymore.”

B2: #shi de, Xiaoming yi qian chou guo yan.

be \*, Xiaoming past smoke-PP

“Yes, Xiaoming used to smoke.”

(16) B3: bu shi, Xiaoming hai zai chou.<sup>②</sup>

NEG be, Xiaoming still smoke

“No, Xiaoming still smokes.”

B4: #bu shi, Xiaoming yi qian (jiu) bu chou.

NEG be, Xiaoming past (\*) NEG smoke

“No, he didn't use to smoke.”

①and②: In Mandarin Chinese, when the question sentence consists of a negation, the response to the question would be different from that in English. In (proper) English, when assenting/dissenting a question with negatives, people tend to assent/dissent the fact/existence. This statement is supported by all five English native speakers consulted. Whilst in Mandarin Chinese, people tend to assent/dissent the opinion, but not the fact, raised in the question.

The four consultants consistently judged the utterance by B1 in (15) and B3 in (16) acceptable, which suggests that Proposition 1, *Xiaoming doesn't smoke anymore*, is the at-issue content of the target sentence, and Proposition 2, *Xiaoming used to smoke*, is not-at-issue.

### #3b Positive/negative answer with adversative continuation

Similar to diagnostic #3a, the utterance by A is a general question, but the utterances by B are answers with adversative continuation:

(17) A: Xiaoming bu zai chou yan le ma?

Xiaoming NEG again smoke QUES

“Doesn't Xiaoming smoke anymore?”

B1: #shi de, dan ta yi qian (jiu) bu chou yan.

be \*, but he past (\*) NEG smoke

“Yes, but he didn't use to smoke.”

B2: #shi de, dan ta hai zai chou.

be \*, but he still smoke

“Yes, but he still smokes.”

B3: ?bu shi, dan ta yi qian chou guo yan.

NEG be, but he past smoke-PP

“No, but he used to smoke.”

B4: #bu shi, dan ta bu zai chou le.

NEG be, but he NEG again smoke

“No, but he didn't smoke anymore.”

In diagnostic #3b, the result is nearly the same as that in diagnostic #1c. Different from English, the (not-)at-issue content here again can't be distinguished. Three consultants judged none of the responses to A's utterance acceptable, while another still judged B3 make sense a little. And the judgments again helped support our

hypothesis that the proposition that *Xiaoming doesn't smoke anymore* is at-issue while the proposition which conveys that *Xiaoming used to smoke* is not-at-issue.

### 4.3 Summary of all diagnostics' results

Here in this dissertation I do not intend to give out detailed application processes of all diagnostics to all content types. I have summarized the results of all content types in Chinese mentioned in the previous section, and compiled them into the table below.

Trigger/content	#1a	#1b	#1c	#2	#3a	#3b
Nominal Appositives	√	√	√	√	√	√
Demonstrative NP Impl.	√	X	(√)	√	X	X
Possession Implicature	√	√	(√)	√	√	X
<i>Bu zai</i> "not...anymore"/pre-state Implicature	√	√	X	√	√	X

Table3: The (not)-at-issueness of all projective content

In the table, a checkmark "√" indicates that the diagnostic identifies the (not-)at-issue contents while "x" indicates that the diagnostic did not distinguish the hypothesized at-issue content from the hypothesized not-at-issue content.

## Chapter 5. Further Discussion

### 5.1 Modifications on Tonhauser's diagnostics

Generally speaking, Tonhauser's diagnostics also work smoothly in the Chinese language environment. However, as English and Chinese are quite different languages, some modifications on the original diagnostics are essential.

The most obvious problem occurred during the application process is the diagnostic #2. To recall diagnostic #2, it should be clarified that this diagnostic relies on Property II, which is: *at-issue content addresses the question under discussion*. Though Property II is the defining feature of at-issue-ness, the diagnostic derived from it is not quite applicable in Chinese. In addition, the modified version of D#2 in section 4 is considered redundant and meaningless. As the consultants pointed out, they felt like they were doing redundant works when asked about the utterances in diagnostic #2.

Therefore, I proposed to modify the discourse environment of diagnostic #2 and this modification is defined as:

**Diagnostic #2:** Create a discourse in which speaker A utters a wh-question of the target sentence and an addressee B answers that wh-question with the two propositions of the target sentence. The proposition which is considered to be intuitively acceptable is the at-issue content, and the other is not.

To illustrate this modification more clearly, I will use the utterances in the pre-state implicature again as the example:

(18) A: Xiaoming de qianbao shi shenme yanse de?

Xiaoming GEN purse be what color \*

“What color is Xiaoming's purse?”

B1: #Xiaoming you yige qianbao.

Xiaoming have a purse  
“Xiaoming has a purse.”

B2: Qianbao shi hongse de.  
purse be red \*  
“The purse is red.”

In example (18), A's utterance is directly derived from the target sentence to form a wh-question. B1 and B2 are the two propositions themselves serving as the answers. All four consultants easily determined that B1 not acceptable while B2 acceptable. So the at-issue content is *The purse is red*. With this modification, the result of diagnostic #2 doesn't change and the consultants did not find the diagnostic redundant.

Another modification to Tonhauser's diagnostic is the elimination of diagnostic #3b. As presented in the summary table, it seems that the only project trigger that passed diagnostic #3b is the nominal appositive. This is simply because in a sentence structure of the nominal appositive, two propositions are completely separate compositions of the sentence so that they do not influence with each other and are able to hold true separately. According to Potts (2007), the nominal appositives receive the full four-valued system (Herzberger, 1973) :  $\langle 1,1 \rangle$ ,  $\langle 1,0 \rangle$ ,  $\langle 0,1 \rangle$  and  $\langle 0,0 \rangle$ . No other project triggers receive a full system, thus failing the diagnostic #3b.

To illustrate this point clearer, take the following sentence as an example:

(19) Mike, a journalist, was hit yesterday.

In the sentence, the two propositions are: 1) Mike is a journalist; 2) Make was hit yesterday. The sentence in (19) itself receives a value of  $\langle 1,1 \rangle$  if the two propositions are given the value 1. If the first proposition is negated, thus the value is 0, the sentence still make sense: *Mike, not a journalist, was hit yesterday*. Therefore, the sentence receives a value of  $\langle 1,0 \rangle$ . Then similarly, if the second proposition and both two propositions are negated, the sentence receives the value of  $\langle 0,1 \rangle$  and  $\langle 0,0 \rangle$  respectively.

From the explanation above, it can be seen that the nominal appositives passed the diagnostic #3b is because of its nature, but not because of the projection feature. Therefore, I propose to eliminate diagnostic #3b from the overall diagnostics. In this way, a new set of diagnostics which suits the Chinese language environment can be represented by the following table:

Set I	D#1a	Diagnostic #1a: Intuitions about assent/dissent
	D#1b	Diagnostic #1b: Assent/dissent with positive continuation
	D#1c	Diagnostic #1c: Assent/dissent with adversative continuation
Set II	D#2	Diagnostic #2: Answer with propositions to the wh-question
Set III	D#3	Diagnostic #3: Positive/negative answer with positive continuation

Table 4: New Set of Diagnostics for Chinese

## 5.2 Reasons accounting for the modifications

As the new set of diagnostics presented, the majority of the original set of diagnostics is maintained and the major modifications occur to D#2. This is mainly

because of the word order difference between English and Chinese. Tonhauser's methodology relies on the flexibility of English's word order so that he could create similar sentences containing different at-issue contents by exchange compositions within a sentence. But as a non-inflectional language, "Chinese relies heavily, if not totally, upon auxiliary words and word order in its grammatical system" (Tai, 1985: 49-72). In other words, the word order in Chinese carries important semantic functions and is not easily to be changed without changing the basic structure of the utterance. Therefore, positions of the compositions within an utterance cannot be moved flexibly and the response utterances by B in diagnostic #2 cannot be formed.

In addition to the word order difference, the lack of non-restrictive clauses in Chinese also contributes to the modifications. This feature influences the original diagnostic #3b. As I explained in section 5.1, it is the nature of the nominal appositives but not the at-issue-ness that passes D#3b and therefore D#3b is deleted. This nature is the flexibility of nominal appositives in English. However, nominal appositives in Chinese do not receive a four-valued system because they simply cannot be reversed flexibly. This is due to the lack of non-restrictive clauses in Chinese. Consider the following circumstance:

(20) A. Mike, a journalist, was hit yesterday.

A'. Mike, who was hit yesterday, is a journalist.

B. Mike, yige jizhe, zuotian bei da le.

Mike, a journalist, yesterday PASS hit \*

"Mike, a journalist, was hit yesterday."

B'. #Mike, zuotian bei da le, shi yige jizhe.

Mike, yesterday PASS hit \*, be a journalist

"Mike, (*who*) was hit yesterday, is a journalist."

From utterances (20)A and A', it can be seen that nominal appositives in English can be easily reversed because the relative pronouns such as *who* and *when* help form non-restrictive clauses. In the example in (20), the pronoun *who* is used to make the whole sentence reasonable and grammatical. However, in Chinese, there exist no relative pronouns or non-restrictive clauses, which makes Tonhauser's D#3b for nominal appositives not applicable in Chinese. Therefore, this diagnostic is eliminated in the new set.

### 5.3 Use D#1c to distinguish entailments from presuppositions/CIs

In section 4.1, there occurred a problem concerning diagnostic #1c's ability to identify the at-issue content. With the initial Proposition 1, *Xiaoming has a purse*, diagnostic #1c cannot identify the at-issue content. However, with the modified version, *The purse belongs to Xiaoming*, diagnostic works for the Possession Implicature.

It is not the Possession Implicature alone that encounters this problem when applying diagnostic #1c. The same phenomena happened to the Descriptive NP Implicature.

**Target sentence:**

na-zhi gou zai jiao.  
that dog PROG bark \*  
“That dog is barking.”

**Proposition 1:** There is a dog.

**Proposition 1’:** That is a dog.

**Proposition 2:** The dog is barking.

(21) A: na-zhi gou zai jiao.

that dog PROG bark \*  
“That cat dog is barking.”

B1: #dui, dan mei you gou.  
yes, but NEG have dog  
“Yes, but there isn’t a dog.”

B1’: dui, dan na bu shi gou.  
yes, but that NEG is dog  
“Yes, but that isn’t a dog.”

B2: bu dui, dan you gou.  
no, but have dog  
“No, but there is a dog.”

B2: bu dui, dan na shi zhi gou.  
no, but that is Q dog  
“No, but that is a dog.”

B3: #dui, dan gou mei zai jiao.  
yes, but dog NEG PROG bark  
“Yes, but the dog isn’t barking.”

B4: #bu dui, dan gou zai jiao.  
no, but dog PROG bark  
“No, but the dog is barking.”

From the diagnostic above, it is clear that with Proposition 1, diagnostic #1c is not working. But with Proposition 1’, diagnostic #1c is able to identify the at-issue content, which is Proposition 2: *The dog is barking*.

What caused the behavior difference of diagnostic #1c? The answer is the nature of the two propositions. Both Proposition 1 in Possession Implicature and Demonstrative NP Implicature are entailments, while the modified propositions are presuppositions or CIs (conventional implicatures). Entailment is “the relationship between statements that holds true when one logically follows from one or more others”. Its main feature is not cancellable. Contrary to entailment, presupposition and CIs are cancellable. Therefore, the proposition that causes #1c’s dysfunction is the entailment of the target sentence, and the proposition that enables #1c to work is the presupposition/CI (this dissertation avoids distinguishing presuppositions from conventional implicatures). In Possession Implicature, the entailment is *Xiaoming has a bag*, and in Demonstrative NP Implicature is *There is a dog*.

When a target sentence contains more than two propositions, entailments might be wrongly treated as not-at-issue content because they pass diagnostic #1a, just as what happened in the examples before. But #1c could help determine whether the proposition is entailment or not, which helps distinguish entailments from other meanings. In this way, the diagnostics are not solely for identifying at-issue contents, but also for distinguishing different classes of meanings.

## Chapter 6. Conclusion

After a basic literature review of the concept of at-issueness and a general description of Tonhauser's diagnostics, this dissertation goes down to applying the diagnostics to the Possession Implicature and Pre-state Implicature in Chinese to justify the validity of the diagnostics. The results of the diagnostics show that Tonhauser's diagnostics are mostly applicable to the Chinese content types I have concluded. Through the process of the application, several problems occurred, so that the original diagnostics could be perfected to fit into Chinese. The original diagnostic #2 is modified by changing the discourse environment, and the original diagnostic #3b is cut off because it is not working efficiently in the Chinese language environment. In addition, this dissertation identifies another function of the diagnostic, which is to distinguish entailments from presuppositions and CIs. This function also helps prove the statement that entailment shares the feature of at-issueness made by Potts (2007).



## Glosses

NEG: negatives

PAST: past tense

PP: past perfect tense

\*: modal particle

sg: singular form

Q: quantifiers

GEN: genitives

QUES: question marker

PASS: passive tense

DET: determiner

1: first person

2: second person

3: third person

PROG: progressive tense

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