How to ask questions in Mandarin Chinese

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HOW TO ASK QUESTIONS IN MANDARIN CHINESE

BY

WOAN-JEN LIING

A dissertation submitted to the Graduate Faculty in Linguistics in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

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ABSTRACT

HOW TO ASK QUESTIONS IN MANDARIN CHINESE

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DISSERTATION ADVISOR: ROBERT W. FIENG

This thesis re-examines the four main question-types in Mandarin Chinese, namely, particle questions, háishí questions, A-not-A questions and wh-questions, whose previous accounts are argued to be unsatisfactory due to various faulty assumptions about questions, particularly the stipulation of ‘Q’. Each of the four Mandarin Chinese question-types is re-accounted based on the view that questions are speech-acts, whose performance are done by way of speakers’ subconscious choice of sentence-types that mirror their ignorance-types, as proposed in Fiengo (2007). It is further demonstrated that viewing questions as speech-acts instead of a structurally marked sentence-type allows a simpler and more intuitive account for expressions that occur in them. Two expressions are re-evaluated for that matter: the sentential adverb dàodí in Mandarin Chinese and wh-the-hell in English.
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The writing of my dissertation has been a journey for me not only academically but also introspectively. The things I have learned through the process have gone far beyond the linguistics lectures at the Graduate Center and the long afternoons spent at the Mina Rees library. On train rides home, the frequent coffee runs to Starbucks, long showers, and numerous sleepless nights, my thoughts have frequently been overrun with a myriad of possible solutions to the problems I was trying to address. Sometimes they were fruitful but most of the time they left me frustrated. Through all this, it has been my dissertation advisor, Robert Fiengo, who has kept a cool mind when I did not and provided clear guidance when I was lost. Even though he does not speak Mandarin Chinese, he would still always ask the most precise questions, and that has proven to be very crucial to the construction of my thesis. The ideas of many sections in my thesis originated as answers to his questions, and I could always rely on him for honest opinions, useful feedback and for pointing me in the right direction to find answers. It has been an honor to work with him and I truly could not have achieved this without him.

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CHAPTER I  INTRODUCTION: A FRESH LOOK AT QUESTIONS

1.1 WHAT ARE ‘QUESTIONS’? A CASE AGAINST ‘Q’

What are ‘questions’? A layman may, with ease and full confidence, tell you that they are a type of sentence that people use to ask for information, express doubt, make suggestions, etc. He may have such an impression because those sentences are, as far as a layman is concerned, quite different from the other sentences that he uses to assert, demand, and give orders. And most linguists, who have also taken notes of the structural distinctions, have come to a similar consensus that these sentences are specifically made to ask questions. How are these sentences special? Katz & Postal (1964) assign these sentences a Q-morpheme, which, according to them, not only gives rise to the structural distinctions questions possesses but also make these sentences questions. Since then, with minor adaptation and nearly no disagreement, questions have been widely accepted as a special class of sentence, syntactically harboring a Q-morpheme or operator. To them, structure and use are not distinguished; there is, in their accounts of language, no theory of use distinct from a theory of structure. If we lived in a world where questions were always asked with structurally distinctive sentences, the postulation of Q might give us some unobstructed insights, the analyses of English questions might be able to be effortlessly repeated in other languages, and I would have to conclude my thesis right here. Unfortunately, questions are not always structurally distinctive. It is not the case in English, nor is it the case in Mandarin Chinese.

Fiengo (2007) is the first to argue against the syntactic annexation of use\(^1\). First, the postulation of ‘Q’ does not predict questions as it is expected to. As he points out, Q-morpheme does not occur in all sentences used to ask questions. Questions such as It’s raining? and You saw who? do not show the syntactic effects supposedly brought upon by the Q-morpheme; the lack of inversion and wh-fronting in these questions points toward the absence of ‘Q’. Even under the most positive light where ‘Q’ is taken to exclusively account for the structural distinctiveness of a certain questions, I must point out that the complete absence of structural distinctions in, at

\(^{1}\) Note that Fiengo (2007) does “not oppose the spirit of Katz & Postal’s syntactic arguments in support of Q; there is nothing in principle wrong with syntactic arguments in support of unheard structure” (p.4).
least, Mandarin Chinese questions, poses challenges to the theory of ‘Q’. Secondly, questions cannot be indiscriminately categorized under the same umbrella of ‘Q’. Fiengo (2007) points out that the wh-fronted question *Who did you see?* and the wh-in-situ question *You saw who?* are two different questions. One who asks the wh-fronted question presents himself as not knowing who you see, but one who asks the wh-in-situ question presents himself as confirming the presupposed person you saw. Their semantics is different, and so should their structure be. Of course, one may be tempted to propose two ‘Qs’, one that triggers structural transformation while the other does not. But again, this proposal would fail to predict languages without movement, such as Mandarin Chinese. As shown in (1), the Mandarin Chinese counterparts of *Who did you see?* and *You saw who?* are completely identical in both wording and word order. The alternative two-‘Q’ proposals would be useless in the case of Mandarin Chinese.

1) 你看到誰?

你看到誰?

*a. ‘Who did you see?’*

*b. ‘You saw who?’*

Questions cannot be appropriately explained in strictly syntactic terms; questions are not a special class of sentence-type. If questions are not sentences, then what are they? Fiengo (2007) gives a novel account of questions, which turns out to be quite accurate in predicting all sorts of questions and their related issues in both English and Mandarin Chinese, which is the main discussion in Chapter two. Fiengo (2007) views questions as speech-acts that, when performed, allow speakers to convey their ignorance. To ask a question, one must choose a sentence-type that is syntactically and semantically appropriate in expressing the relevant ignorance. The ‘appropriateness’ is discussed in the next section. For the time being, I should point out that under Fiengo’s (2007) view of questions, syntax does not dictate what type of speech-act an utterer of a sentence is performing – a questioning speech-act is performed not because the utterance has a ‘Q’ dangling at the structural head of it; instead, the utterer whose choice of sentence-types allows him to perform the type of speech-act he intends to.
Against the trend to merge use into grammar\(^2\), Fiengo (2007) draws a clear distinction between them. He argues that grammar defines sentence-types, as syntax determines well-formedness and semantics gives meanings; use, on the other hand, is a choice of sentence-types made by speakers. When conducting linguistic activities, speakers choose the right sentence-types to convey what they want to say. For example, if we want to assert that pigs fly, we would choose a sentence-type that allow us to convey the proposition \(p: \text{pigs fly}\). If we choose a sentence-type that does not, such as \(\text{Do pigs fly}\) then we break the rule of application. Fiengo (2007) notes that we do not consciously decide on the sentence-types we want to use, just like we do not consciously consult our knowledge of grammar when we speak. Although both are beneath speakers’ notice, the violations are not the same. Uttering \(\text{Does pigs fly}\?) is a violation of agreement in English, but uttering \(\text{Do pigs fly}\?) when one’s intention is to convey that pigs fly is a violation of use. Grammar and use are not the same and should not be confused.

By giving use its due and returning grammar to its most basic state, the theory of questions is actually a very simple and elegant one. No more fussy, counterintuitive, inefficient and sometimes faulty stipulations. I demonstrate just that for Mandarin Chinese questions in Chapter two.

\[1.2 \quad \text{QUESTIONS ARE INCOMPLETE IN ONE WAY OR ANOTHER}\]

“Ignorance is a lack”, Fiengo (2007) stresses, and speakers who seek to linguistically address that ignorance ask questions that mirror the ‘lack’. As a result, as Fiengo (2007) holds, questions are all incomplete one way or the other, and the ways questions are incomplete correspond to the varieties of sentence-types speakers choose to ask questions. Fiengo (2007) proposes two major sorts of ignorance: “on the one hand, we may wish to indicate that we lack either a thing-in-the-world or a bit of language...on the other hand, we may wish to indicate that we lack certain beliefs, or that we lack the ability to complete certain utterances” (p.1). To address the former type of ignorance, he argues, speakers choose sentence-types that are incomplete in a certain way, and the latter type of

\(^2\) It is important to note that the term ‘grammar’ in my thesis bears the traditional definition, which refers strictly to the formal theories of linguistics, such as syntax, semantics and phonology. It does not refer to the ‘general rules of language’. Hence, saying questions should not be accounted for in grammar alone is not the same as saying that questions cannot be accounted for by rules. In fact, I argue that the speech-act of questioning follows a set of rules, except that the rules I am arguing for are not the formal ones that are commonly assumed.
ignorance is addressed through using a sentence. In the theory of questions proposed in Fiengo (2007), (in)completeness distinguishes sentence-types used to ask questions, each of which corresponds to a particular type of lack that are used to represent a particular type of ignorance a speaker has. Understanding what we, as speakers, are ignorant about when asking a question is the first step toward the full understanding of questions, which would eventually allow us to build a system that accounts for not only our choice of sentence-types but also the limitation of them.

Suppose you work inside a windowless building and you do not have the visual facts about the weather. Then your coworker comes in with a drenched umbrella. Being ignorant about the weather and intrigued by the drenched umbrella, you ask your coworker about the weather. Each of the two questions below, as in (2a & b), reveals your ignorance in different ways. Asking the inverted (2a) presents you as not knowing if it is raining; your question demonstrates that you are clueless and your stance toward the answer is neutral – it could go either way. On the other hand, asking the non-inverted (2b) presents you as confirming that it is raining, an impression that you probably have obtained from seeing the drenched umbrella. Although both questions can get you the facts, i.e., whether it is raining outside, the ways your ignorance is presented through the chosen sentence-type are distinctively different.

2) a. Is it raining?
   b. It’s raining?

The questions shown above are examples of two structurally contrasted sentence-types in English. One is inverted; the other is not and this non-inverted sentence-type produces a proposition. Speakers use the inverted sentence-type to ask open questions, a term coined by Fiengo (2007) to describe questions whose speakers do not have a presumed belief toward the answer, i.e., they are open about it; in contrast, speakers with presumed belief use the non-inverted sentence-type which produces propositions to confirm their presumed belief – the type of question Fiengo (2007) calls confirmation question. Open questions and confirmation questions are the two basic types of questions in Fiengo’s (2007) theory of questions. All questions can be more or less subcategorized under these two arch types. Consider wh-questions such as (3a & b). Asking the wh-fronted (3a) presents you as having no idea who
John’s dinner date was last night, but asking the wh-in-situ (3b) presents you as confirming that John was having dinner with, say, Kim Kardashian. Imagine a situation where you are told that John had dinner with Ms. Kardashian, and you have to confirm what you have just heard because it is just too out of the ordinary. An open wh-question seeks to produce an individual, but a confirmation wh-question seeks to confirm or deny a belief concerning that individual.

3) a. Who was John having dinner with last night?
   b. John was having dinner with who last night?

Fiengo (2007), the first to recognize the distinctive speech-acts and their corresponding sentence-types, holds that open questions are incomplete in grammar – or in Fiengo’s (2007) term, being ‘formally incomplete’ – and the confirmation questions are incomplete in speech-act. Being ‘formally incomplete’ means a sentence-type is grammatically lacking. Be it a structural defect or semantic deficiency, a grammatically incomplete sentence, unlike its grammatically complete counterpart, is unable to produce a proposition. And that is exactly why they can be used to convey speakers’ ignorance. The formally exhibited ‘lack’ in those sentences represents speakers ‘lack’ or ‘ignorance’.

How are sentences ‘formally incomplete’? Take yes-no questions for example. There is an assumption dating back to Aristotle (N/A) and present in Frege (1891) that there is something that fuses a subject and predicate together. Fiengo (2007) calls this ‘the glue’. While he takes no firm stand on what the glue is – for Aristotle³, the copula was the glue; for Frege, saturation was the glue – the view he hopes to express is that the inversion in English indicates that the glue is absent, indicating structural incompleteness. For example, an inverted sentence such as Is John fat? expresses that it is unknown whether the predicate fat can be applied to the subject John, a case of missing glue. This structural incompleteness is hence used to present speakers as not knowing if John is fat,

³ Via personal communication, Fiengo states that “what dated back to Aristotle was the problem of accounting for the unity of the proposition. In those days, both subjects and predicates were understood to be names, so the question arose why a proposition isn’t just a list of names. How is a proposition unified? The copula was his answer.”
and an open yes-no question is therefore asked. Note that asking if the predicate can be applied to the subject is different from asking if a proposition is true. For example, Fiengo (2007) exemplifies, asking Do you like the movie? is totally different from asking Is it true that you like the movie? The former presents the speaker as not knowing if the addressee likes the movie, but the latter presents the speaker as not knowing if it is true that the addressee likes the movie. Their difference lies in the position where the glue is marked missing. In the former case, the missing glue is between you and like the movie, but in the latter case, the glue is missing between your liking the movie and is true.

Open wh-questions are another type of ‘formally incomplete’ sentence-type. Fiengo (2007) argues that they are examples of semantic incompleteness. In those questions, the in-situ variable, which occupies a referring position such as the subject/object position or an adjunct position, is bound by a wh-expression at the wide-scope position, a result from what Fiengo (2007) calls splitting. This wh-variable dominated by the fronted wh-expression is the source of the semantic incompleteness, or in Fiengo’s (2007) term, being ‘referentially incomplete’. Let us compare a ‘referentially incomplete’ wh-variable side by side with the trace in a sentence containing a passive participle and the variable bound by a quantifier. Consider the contrasts in (4a & b). The trace in (4a) is bound by a proper noun Mary. Although the trace does not refer, Mary refers. The wh-variable in (4b) is bound by who, a form which indicates that it ranges only over people. The answer to a wh-question is true just in case the appropriate items are produced, but the wh-sentence (not the answer) itself is neither true nor false because the wh-variable does not refer to any item and the sentence is referentially incomplete.

4) a. Mary, was seen at the theater last night.
   b. Who, did John see at the theater last night?

The opposite of ‘formal incompleteness’ is observed in speech-acts. Fiengo (2007) states, questions are assessed with respect to assertions. Those that are incomplete in grammar are used to ask open questions; those that are incomplete in terms of speakers’ belief – as opposed to assertions which presuppose speakers’ full belief

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4 Detailed discussions of splitting are in Section 2.3 wh-questions.
and confidence in them – are used to ask *confirmation* questions. Unlike *open* questions whose *incompleteness* has been a familiar subject of formal analyses, particularly in syntax, *confirmation* questions, which are grammatically *complete*, have received much less, if any, attention. Nonetheless, they should be given equal footing, because both *open* questions and *confirmation* questions are indispensible in our linguistic exchanges. The frequently overlooked *confirmation* questions, though lacking distinguishable grammatical features, are used in our daily mundane exchanges more often than we think. Consider the following example. Suppose you are trying to figure out where to take your friend for dinner, and you are considering the cozy brick oven pizzeria at the corner. Although pizza is a noncontroversial choice – who on earth doesn’t like pizza? – you may still need to confirm that your friend is not one of those with peculiar tastes. To *confirm*, you proffer the proposition *you like pizza* without presenting yourself as having sufficient belief in it, as shown in (5Q). This act of speech expresses your (the speaker) lack of confidence in the proposition conveyed in the utterance on your part, and is then taken as seeking the input of *confirmation*.

5) Q: You like pizza?                    (confirmation)
   A: Yup.

To summarize, *questions* cannot be viewed as a type of sentence that structurally carries a ‘Q’. Of the many reasons, the most important is that it is unrealistic to stipulate as such for all types of questions. Take English for example, the structural distinctions in those frequently commented *open* questions such as inversion and *wh*-fronting are completely absent in *confirmation* questions. And if two types of ‘Q’ are to be respectively assumed in *open* questions and *confirmation* questions, then we would encounter problems in discerning *assertions* and *confirmation* questions whose word sequence are completely identical. The inadequacy in assuming ‘Q’ as a distinctive feature in *questions* is evident. Alternatively, if *questions* are viewed as a type of speech-act, which utilizes different sentence-types to reveal the particular type of ignorance held by each speaker, as proposed in Fiengo (2007), the problem would be resolved. Essentially, what Fiengo (2007) proposes is that our choice of sentence-types, which are either formally *incomplete* or formally *complete* but uttered with insufficient belief, linguistically mirrors what we are ignorant of, and this choice, as subconscious as our choice of grammar, is the rule of how *questions* are asked – the formally *incomplete* sentence-types allow speakers to address the missing
components that disallow them from making the relevant assertions; the formally complete sentence-types let speakers convey that what prevents them from making the relevant assertions is the lack of sufficient belief. Once we establish the basics of what questions are correctly, we can more productively and elegantly tackle the myriad of question-related issues without burdening our theories with complex formal stipulations. Most important of all, we should never forget that questions can go wrong for many reasons, and grammatical mistakes are only one of them. My thesis argues just that.

1.3 OUTLINE OF WHAT FOLLOWS

This paper sets out to replicate Fiengo’s (2007) theory of questions in Mandarin Chinese, a language without overt movement and overt morphological markings, whose occurrences in English have been attributed to the existence of ‘Q’. Four major sentence-types used to ask questions are investigated in Chapter two, namely, the particle questions, the disjunctive questions, the A-not-A questions and the wh-questions. Each of the sentence-types is given a fresh account based on Fiengo (2007) while previous approaches are re-examined. Furthermore, some prevalent misunderstandings about Mandarin Chinese questions are debunked, particularly those whose error hinges on the presumption that questions are a special sentence-type.

PARTICLE QUESTIONS

Mandarin Chinese particle questions are composed by adding a particle to the end of declarative sentences.

6) 你累了嗎?

nǐ lèi le ma?
you feel.tired ASP MA
‘You are tired?’

There are three particles that commonly occur in Mandarin Chinese questions: ma, ba and ne. Previous accounts have generally viewed these particles as question markers which syntactically ‘type’ these sentences as questions (Cheng 1991) and, in some of the analyses, induce a series of complex covert movements (Sybesma 1999, Aldridge 2011, among others). Their efforts are aimed at explaining why these sentences are questions in terms of syntax
and to conform Mandarin Chinese questions to the general syntactic formulation of questions. Being treated as question markers that contribute to interrogative interpretations, these sentence-final particles are consequently taken to be on par with question markers occurring in other sentence-types, which inevitably leads to various wrong assumptions. For example, some researchers, such as Ernst (1994), equate particle *ma* questions with *A-not-A* questions because, among other reasons, both the particle *ma* and the *A-not-A* constituent are question markers. But the reality is that *ma* questions and *A-not-A* questions are different types of questions; they have different uses and different meanings. Even if they both contain interrogative markers, the markers cannot be the same one. Most important of all, the assumption that these sentence-final particles are inherently interrogative is not correct. For one, none of these three sentence-final particles truly mark questions. By the most standard assumption, a question marker should shift a sentence, which, by itself, cannot be used as a question, into a sentence that can be used as a question. But without the particle *ma* and *ba*, the remenant *ma* and *ba* sentences can still be used to ask *confirmation* questions. Similarly, without the particle *ne*, the remnant sentence preceding the particle is still an *open* question. The addition of these sentence-final particles does not contribute to the otherwise absent interrogative meaning as predicted. In Section 2.1, I argue that these sentence-final particles are ‘presupposition particles’. I demonstrate that the addition of *ma* to a statement presents the speaker as *not* presupposing a positive confirmation, whereas the addition of *ba* presents the speaker as presupposing a positive confirmation. And the sentence-final addition of *ne* to a structurally incomplete sentence, or, an *open* question, presents the speaker as *not* presupposing that the addressee knows the answer, which signals the opposite of what *open* questions normally present their speakers as, i.e., assuming the addressee knows the answer.

**Disjunctive Questions**

Mandarin Chinese disjunctive questions are composed such that the disjuncts in a sentence are adjoined by the disjunctive 還是 háishi (‘or’). They are in contrast with assertions where the disjuncts are adjoined by the disjunctive 或者 huòzhē (‘or’).

7) a. 約翰星期三還是星期五會來？

yuēhàn xīngqīsān háishi xīngqīwǔ huí lái
John Wednesday or Friday will come

‘Will John come on Wednesday or Friday?’

b. 约翰星期三或者星期五會來。

yuēhàn xīngqīsān huòzhě xīngqīwǔ huì lái

John Wednesday or Friday will come

‘John will come on Wednesday or Friday.’

Because of their distribution, háishì is prevalently viewed as the interrogative version of huòzhě. For example, Huang, Li & Li (2009) hold that the former is the latter plus a [+wh] feature. There has not been much disagreement on this view and the syntax of Mandarin Chinese disjunctive questions have been built around this assumption. However, the occurrence of háishi does not always make a sentence interrogative – a fact that has been largely overlooked.

8) a. 星期三還是星期五都可以。

xīngqīsān háishì xīngqīwǔ dōu kěyǐ

Wednesday or Friday both OK

‘Both Wednesday and Friday both OK.

b. 你還是不要來好了。

nǐ háishì bù yào lái hǎo le

you or Neg will come fine ASP

‘Or you don’t come. (I think you’d better not come.)’

Treating háishì as an interrogative disjunctive fails to predicate assertive háishì-sentences. In Section 2.2, I argue what makes háishì and huòzhě different is not their inherent interrogative feature but their conveyed presuppositions. Speakers utter háishi to present options, and they use huòzhě to present alternatives. I argue that options and alternatives differ in that the former is a logical disjunctive whereas the latter can be a logical disjunctive or conjunctive. Disjoined options allow speakers’ ignorance concerning the true disjunct to be inferred, while disjoined alternatives do not. Being an inference, speakers’ ignorance can be cancelled under a certain
environment, such as when the subject being first person, i.e., the speaker himself, as shown in the contrasts below.

9) a. 約翰星期三還是星期五會來？
   yuēhàn xīngqísān hǎishí xīngqíwǔ huí lái
   John Wednesday or Friday will come
   ‘Will John come on Wednesday or Friday?’

b. 我星期三還是星期五會來？
   wǒ xīngqísān hǎishí xīngqíwǔ huí lái
   I Wednesday or Friday will come
   ‘Will I come on Wednesday or Friday?’

A-not-A Questions

The A-not-A questions is a yes-no question in which a positive predicate is immediately followed by a negative one, hence the name ‘A-not-A’.

10) 你喜歡不喜歡藍色？
    nǐ xǐhuān bù xǐhuān lánse?
    you like-not-like blue.color
    ‘Do you like blue?’

Previous accounts for A-not-A questions are based on the assumption that, being questions, the sentence must contain ‘Q’ in its structure. Thus, it is not surprising that the two general approaches are either treating the A-not-A constituent as a result of a syntactic process triggered by ‘Q’ (Huang 1991, Huang et al. 2009) or treating the A-not-A constituent as inherently contains ‘Q’ (Gasde 2004). In Section 2.3, I argue that, while there is nothing particularly wrong to stipulate accounts in the effort to syntactically formulate A-not-A questions, the Q-based accounts, however, inevitably limit themselves to open questions only. For example, the conventional explanation for an assertive sentence such as (11a) is that the embedded A-not-A constituent is licensed by the embedded Q
which is selected by the verb 忘記 wàngjì (‘forget’). But, as shown in (11b), a structurally identical sentence, when used to ask a confirmation question, cannot be predicated by the syntactic accounts, because the proposed subcategorization of the verb restricts the ‘Q’ to the embedded position.

11) a. 約翰忘記[瑪麗會不會來]。

   yuēhàn wàngjì [ mǎlì hui bù huì lái ]
   John forgot [ Mary will-not-will come ]
   ‘John forgot whether Mary will come.’

b. 約翰忘記[瑪麗會不會來]?

   yuēhàn wàngjì [ mǎlì hui bù huì lái ]
   John forgot [ Mary will-not-will come ]
   ‘John forgot if Mary is coming?’

In Section 2.3, I propose that an A-not-A question is semantically incomplete because it contains two opposing predicates in one sentence: an affirmative predicate and a negative predicate, and this disallows the formation of a proposition. This semantic incompleteness allows speakers to present themselves as not knowing if the positive proposition is true, just like English yes-no questions. When embedded, depending on whether the matrix predicate subcategorizes the incomplete clause, the A-not-A clause can have either open question interpretation or assertive interpretation. Under this account, the confirmation-question use of an assertion, such as (11b), can be straightforwardly explained; it conveys the insufficient belief to assert on the part of the speaker.

**Wh-Questions**

Mandarin Chinese wh-questions, just like their English counterpart, contain wh-expressions, but unlike English wh-expressions, Mandarin Chinese ones stay in-situ.

12) a. 他是誰?

   tā shì shéi?
   he SHI who
‘Who is he?’

b. 約翰在哪裡？

yuēhàn zài nǎlǐ

John in where

‘Where is John?’

c. 這是什麼？

zhè shì shéme

This SHI what

‘What is this?’

There are two general approaches to explain the lack of overt wh-expression displacement in Mandarin Chinese. One assumes that the wh-expressions do move, albeit at a different level, i.e., LF. Such approach is first argued in Huang (1982b). The other assumes that they do not move; the interrogative interpretation is obtained through unselective binding by a Qu operator. Proponents of such approach are Aoun & Li (1993b) and Tsai (1994a), among others. In Section 2.4, I demonstrate that neither approach is satisfactory; there are sentences that cannot be predicted by their approaches. Based on Fiengo (2007) who proposes that the wh-fronting phenomenon is actually an optional syntactic process called splitting, I argue that Mandarin Chinese wh-expressions split at LF. I further argue for the difference between the two approaches: LF movement and LF splitting, and also argue for the benefit of treating splitting as an optional syntactic process.

Having accounted for the four main question-types in Mandarin Chinese, I go on in Chapter Three to investigate one of the most prominent misunderstandings in Mandarin Chinese questions – its relation to sentential adverb 到底 dàodǐ (‘lit. to the bottom’). The adverb dàodǐ is most commonly used together with questions, and has hence led researchers to believe that it somehow needs to be syntactically licensed by questions. I point out that accounts based on this belief is flawed, especially considering the uses of dàodǐ in assertions, which have been largely overlooked in previous studies. Furthermore, I argue against the prevalent assumption that dàodǐ is the Chinese wh-the-hell, another misguided assumption based on their similar behaviors in questions, e.g., their occurrence in questions, the conveyance of speakers’ attitude such as impatience and
irritation, and the related accounts based on that assumption. I demonstrate that neither wh-the-hell nor dàodî occur in questions ‘only’, not to mention that the attitudes of speakers associated with the use of them do not arise from the syntax or morpho-syntax as suggested in those accounts. I substantiate accounts for both dàodî and wh-the-hell and demonstrate that mine can predict a wider range of uses, in both questions and assertions, as well as providing explanations for the garden varieties of attitudes expressed through the use of wh-the-hell and dàodî in terms of speech-acts.

Chapter Four is the conclusion. I summarize my accounts for Mandarin Chinese questions and suggest possible further research topics.
CHAPTER II  THE FOUR TYPES OF QUESTIONS IN MANDARIN CHINESE

2.1  PARTICLE QUESTIONS IN MANDARIN CHINESE

This section discusses three Mandarin Chinese particles that occur in questions, namely, *ma*, *ba* and *ne*. I use the term ‘particle questions’ to refer to sentence-types whose sentence-final particles allow them to be used to ask a particular type of questions. Thus, the term ‘particle question’ is named from a speech-act point of view. Among the three sentence-final particles, I argue that *ma* and *ba* are more closely related to each other, even though all three of them make similar contributions to the speech-act of *questioning*, namely, the speaker’s presupposition, to which I will discuss in a short while. An important point I make about these particles is that none should be viewed as a ‘question marker’, a common assumption in most formal analyses. A ‘question marker’, by the most standard assumption, should be one that turns a sentence that cannot otherwise be a question into a question. But none of them meets that requirement. The particles *ma* and *ba* are used following structurally complete sentences, which, by themselves, can be used to ask bare *confirmation* questions. As shown in (1a & b), a particle *ma/ba* question is a *confirmation* question, but without the particle, the sentence can still be used to ask a bare *confirmation* question. Similarly, the presence or absence of the sentence-final particle *ne* does not change the fact that the structurally *incomplete* sentence is used to ask an *open* question, as shown in (2a & b).

1)  a. 外面在下雨嗎/吧？

    wàimiàn zài xià yǔ ma/ba

    outside PROG fall rain MA/BA

    ‘It’s raining outside?’

    b. 外面在下雨嗎/吧。

    wàimiàn zài xià yǔ ma/ba

    outside PROG fall rain MA/BA

    ‘It’s raining outside?’

2)  a. 外面有沒有在下雨呢?

    wàimiàn yǒu-méi-yǒu zài xià yǔ ne
outside  have-not-have PROG fall rain NE

‘Is it raining outside?’

b. 外面有沒有在下雨呢?

wàimàn  yǒu-měi-yǒu  zài  xià  yǔ  ne

outside  have-not-have PROG fall rain NE

‘Is it raining outside?’

The goal of this section is hence to answer the following questions: What are ‘particle questions’ in Mandarin Chinese? How are these question particles different from each other? How are they used? While previous accounts are reviewed as preliminaries, I argue that they do not capture what these particle questions really are. Particularly, their approach to simplify these sentence-final particles into ‘Q’ leads to faulty accounts. To provide a full picture of these sentence-final particles, I first review the historical development of particle questions (Wang 1958, Chao 1968, Chu 1998, and Aldridge 2008), demonstrating that, despite their diachronic association, these particles have evolved from open question markers to presupposition markers. I then review two major proposals on Mandarin Chinese particle questions. Sybesma’s (1999) head-to-Spec movement account is representative of the view during the 1990s. Aldridge’s (2008/2011) disjunctive account is prevalent in the 2000s. I argue these two types of proposals are unsatisfactory. Finally, I propose my own account.

2.1.1  HISTORICAL DEVELOPMENT

Sentence-final question particles are relatively new in Mandarin Chinese. Their existence had not been observed in written Chinese until the beginning of modern Chinese in the 17th century. It has been proposed and generally agreed that the use of the sentence-final question particle -ma is historically associated with negation occurring at the sentence-final position as early as 17th B.C. (Qiu 1988, Wu 1997, Zhong 1997, and more).

The earliest use of sentence-final negation is seen in Mingci (命辭 ‘prediction-words’), a script carved on turtle shells or bronze ware; the purpose of Mingci is to record predictions. Since there is no punctuation mark in archaic written Chinese, the later proposed phrasal boundaries usually result in different interpretations, especially
regarding the $A > \text{not} > A$ sequence and the $A > \text{not}$ sequence commonly seen in Mingci. Qiu (1988) argues that while questions are rarely used in Mingci, there is no reason to rule out the possibility that the $A > \text{not} > A$ sequence and the $V > \text{not}$ sequence were used in conversations to express 'positive-negative alternative questions' at the time. According to Qiu (1988), each of the Mingci with the $A > \text{not} > A$ sequence and the $A > \text{not}$ sequence, such as (3a & b) and (4a & b) respectively, could have two interpretations. First, they may be interpreted as ‘positive-negative alternative questions’, as in (2a) & (3a), if the sequence is taken to be similar to the $A$-$\text{not}$-$A$ questions and $A$-$\text{not}$ questions in modern Mandarin Chinese. They are used, as part of the Mingci, to 'seek predictions'. In other words, Mingci, a script of predictions, contains questions that seek predictions. To support his account, Qiu (1988) cites Chen to explain the interrogative reading of the $A$-$\text{not}$-$A$ and the $A$-$\text{not}$ form. Second, the $A > \text{not} > A$ sequence and the $V > \text{not}$ sequence may also be interpreted as statements, as in (3b) and (4b), the negative phrase or negation in the sequence is viewed as Yanci (驗辭 ‘examination-words’), words carved after ‘the fact’ to record the factuality of the prediction. For example, in (3b), the prediction said it would rain (雨 $yǔ$), but it turned out it did not rain. The Yanci was then carved afterwards to record the fact/history. The same holds true with (4b), except that only a negation is used.

3)  

a. 雨不雨？  

$yǔ$ $bù$ $yǔ$  

rain-not-rain  

‘Will it rain?’

b. 雨。不雨。  

$yǔ$ $bù$-$yǔ$  

rain. not-rain.  

‘Rain. (It) didn’t rain.’

4)  

a. 雨不？

5 The negation in $A$-$\text{not}$ questions occurs in sentence-final position.

6 Qiu (1998) does not give details regarding the source of this citation.
雨不
rain not

‘Will it rain?’

b. 雨。不。
yù bù
rain Neg

‘(It will) rain. (It) didn’t (rain).’

The ‘declarative’ account is viewed by Qiu (1988) to be more common in Mingci. But again, Qiu notes throughout his paper that it is possible that people ask questions using the A > not > A sequence and the A > not sequence at the time, because some Mingci only exhibit interrogative reading. While debates are still ongoing among historical linguists regarding whether some individual tokens of Mingci are in fact questions, I think it is safe to conclude at this point that the form, i.e., the cluster of A-not-A expression and the sentence-final negation, determines whether a clause can be used to ask questions, open questions in particular.

Between the two interrogative expressions seen in Mingci, the A-not expression has been associated with the sentence-final particle -ma questions. At least three negative words, 不 bù, 否 fǒu, and 無 wú, have been used sentence-finally in questions since 17 B.C. Wu (1997) states that sentence-final negation is originally used to mark
Fan-fu wenju (反覆問句 ‘positive-negative questions’), but beginning with Wei Jin Liu Chao (魏晉六朝, 220 A.D. – 589 A.D.), he cites Zhao (1994) that there is divergence in their use. He henceforth distinguishes two uses of sentence-final negation: Fan-fu wenju (反覆問句 ‘positive-negative questions’) and Non-fan-fu wenju (非反覆問句 ‘non-positive-negative questions’); the latter type includes (i) questions that seek confirmation or express humbleness through the seeking of confirmation, which he categorizes as Cedu wenju (測度問句 ‘speculation-confirmation questions’) and (ii) Fanjie wenju (反詰問句 ‘rhetorical questions’). If Wu’s (1997) observation is correct, despite differences in terminology, the use of sentence-final negation could have been grammaticalized as a confirmation particle as early as the 3rd century and later morphed into sentence-final confirmation particles. In illustration of the confirmation use of the grammaticalized sentence-final negation, below I employ two examples used by Wu (1997:45). In (5a & b), the occurrences of negation in the main clause question suggests that the sentence-final negative word has been grammaticalized; the sentence-final negative word no longer marks the

Q: 你喝不喝茶？/你喝茶不？
   nǐ hē bù hē chá / nǐ hē chá bù
   you drink-not-drink tea / you drink tea not
   ‘Do you drink tea?’
A: 喝。/不喝
   hē           bù hē
   drink        not drink
   (I) drink (tea).| ‘(I) do not drink (tea).’

Secondly, A-not-A questions and A-not questions are not questions that provide alternate choices, strictly speaking. I consider them as glue-less questions in my discussion of A-not-A questions in another section.

Note that since Wu (1997) does not provide any translation other than the original sentences, all translations below are mine.
negative alternative as its predecessors do. The grammaticalized sentence-final negative word is used to mark the confirmation of the preceding negative clause, as shown in my translation.

5) a. 眼耳未覺惡不？

眼耳 wèi jué è 貝

‘You don’t feel that your ears and eyes are useless, correct?’

b. 君得哀家梨，當復不蒸食不？

君 de āijī lǐ dàng fù 不 zhèng shí 不

‘You have obtained his pear (ai-ji is someone who grows the softest and sweetest pear). You are not going to steam it before you eat it, right?’

The diachronic change of the use of sentence-final negative word has been noted and cited by linguists (Ohta 1958, Qiu 1988, Wu 1997, Zhong 1997, Aldridge 2008, among others). Wu (1997) proposes that starting in the Tang Dynasty (618 A.D. – 907 A.D.), 磨 m(u) or 摩 m(u) is sometimes used in place of the sentence-final negative word 無 wú. Ohta (1958) suggests that after the Tang Dynasty, the relatively new character 梼 me began in use in questions. Eventually, the modern character 梼 ma replaces all the previous forms of sentence-final particles that marks the so-called Fan-fu wenju (反覆問句 ‘positive-negative alternative questions’). Zhong (1997), similarly, suggests that some characters have been borrowed to use as sentence-final question particle until the particle 梼 ma has been created.

In terms of pronunciation, Aldridge (2008) suggests that, in questions, the sentence-final negation is pronounced unstressed and therefore the glide is lost, leading to the modern pronunciation ma in Mandarin Chinese. Citing (Wang 1958), Aldridge suggests the induced lenition of the initial consonant: /m/- > /v/- > /w/- is

---

9 Although I disagree that the negation occurring in A-not-A questions and A-not questions marks the negative alternative, here I only re-phrase the general view that they are. The status of the negative complement here does not affect the point I want to make.
the reason sentence-final particle *ma* is pronounced as *ma*. But I suspect its accuracy. Our only evidence is the documents themselves; the particle might have been pronounced differently in different areas of China. It is still highly debatable how archaic and classical Chinese written language was pronounced in a specific dialect since there is no recording of pronunciation. I would not dwell on the phonology of question particles. The structural significance is my sole concern.

### 2.1.2 THE POSITION OF MANDARIN CHINESE QUESTION PARTICLES

The particles *ma*, *ba* and *ne*, occur sentence-finally following a structurally complete clause, as in (6a & b), or a structurally incomplete clause, as in (7a & b).

6) a. 約翰喝茶嗎/吧?

   yuēhàn hē chá ma/ba

   John drink tea MA/BA

   ‘John drinks tea?’

b. 約翰喝茶, 是嗎/吧?

   yuēhàn hē chá shì ma/ba

   John drinks tea, correct MA/BA

   ‘John drinks tea, correct?’

7) a. 他是誰(呢)?

   tā shì shéi (ne)

   he SHI who (NE)

   ‘Who is he?’

b. 他是誰呢?

   tā shì shéi ne

   he NE

   ‘Who is he?’
Given the standard view that these particles function as question/interrogative markers and also that CP is the host of discourse functions, the prevalent assumption is that these particles occupy C0. The earliest stipulation is seen in Lee (1986), Tang (1988/1989), and Law (1990); later it became a standard assumption in the analyses of Mandarin Chinese questions (Li 1992; Aoun & Li 1993a; McCawley 1994; Ernst 1994, among others).

In my thesis, I assume the view that these sentence-final particles occupy C0 in structure. It should be noted that their occupation of the definitive sentence-final position suggests a head-final linear order, while (the majority of) non-interrogative sentences in Mandarin Chinese are head-initial. The syntactic position of these particles is beyond the scope of my thesis and, most importantly, since this does not affect my account for these particles, I do not discuss it further.

In the following, I review two important proposals.

2.1.2.1 SYBESMA (1999): C0-COMPLEMENT TO [SPEC, CP] MOVEMENT

In light of the theory of antisymmetry à la Kayne (1994), Sybesma (1999) explores the viability of the assumption that Mandarin Chinese is a language with underlying Spec-Head-Comp (S-H-C) order. He proposes that the surface head-final linear order in Mandarin Chinese particle questions is achieved via Ā-movement of the entire IP complex to [Spec, CP]. His reasoning is as follows.

Given the assumption that Mandarin Chinese is underlying head-initial and that Mandarin Chinese question particles are base-generated in C0-head, a particle question has a structure such as (8a). In order to achieve the desired surface word sequence where the question particle occurs sentence-finally, Sybesma (1990) proposes that the complement of C0, which he identifies as IP, moves its entirety to the left periphery of C0, which he assumes to be [Spec, CP]. He states that this derivation applies to all Mandarin Chinese sentences, interrogative or not. Now, the question is what motivates the IP-to-[Spec, CP] movement.
Sybesma (1999) argues for an overt Q-feature explanation. Following Cheng (1991) that interrogatives are ‘typed’ at C₀, Sybesma (1999) also assumes a Q-feature at C₀ for particle questions. Particularly, Sybesma (1999) proposes that Chinese question particles are lexical items that carry an overt Q-feature; their occurrence at C₀ is the reason C₀ is fed with a Q-feature. In his words, “…ne and ma are lexical elements that carry features, just like other lexical elements (like verbs for instance), and that C, when it is occupied by ma or ne, only acquires the Q-features by virtue of these elements. In other words, they ‘type’ the clause in Cheng’s (1991) sense” (Sybesma 1999:296). Because C₀ is provided with an overt [Q] by the interrogative particles, feature-checking is required to take place overtly. Therefore, the IP enters into a feature-checking relation with C₀.

However, there is a technical issue with Sybesma’s (1999) explanation. His proposal can generate sentences such as (10) where the particles ma and ne are the only things that carry Q, or sentences such as (11a & b) where the particle ne co-occurs with an interrogative clause such as the A-not-A expression or the wh-expression, but it
cannot explain why the particles *ma* and *ba* cannot co-occur with interrogatives clauses, as shown in (12a), nor can it explain why the particle *ne* must co-occur with an interrogative clause, as shown in (12b).

10) \[\text{[CP [IP 你喜歡 茶 ] [C [c嗎/吧]]?]}\]

\[nǐ xīhuān chá ma/ba\]

you like tea MA/BA

‘You like tea?’

11) a. \[\text{[CP [IP 你喜歡 不喜歡 茶 ] [C [c呢]]?} \text{ (A-not-A + ne)}\]

\[nǐ xǐ bù xīhuān chá ne\]

you like-not-like tea NE

‘Do you like tea?’

b. \[\text{[C[IP 誰 喜歡 茶] [C [c呢]]?} \text{ (wh- + ne)}\]

\[shèi xihuan cha ne\]

who like tea NE

‘Who likes tea?’

12) a. \[\text{[*[CP [IP 你 喜不喜歡 茶 ] [C [c嗎/吧]]?]}\]

\[nǐ xǐ bù xīhuān chá ma/ba\]

you like-not-like tea MA/BA

Intended: ‘It is correct that do you like tea?’

b. \[\text{[*[CP [IP 你喜歡 茶 ] [C [c呢]]?]}\]

\[nǐ xīhuān chá ne\]

you like tea NE

Intended: ‘Do you like tea?’

The subject Sybesma (1999) sets out to explore – to provide a uniformed linear word order for Mandarin Chinese – is intriguing and the basic assumption about the underlying headedness of Mandarin Chinese is probably
true, but, unfortunately, his syntactic account does not explain anything beyond that. We still do not know what constrains \textit{ma/ba} and \textit{ne} to occur in contrasting syntactic environment.

### 2.1.2.2 ALDRIDGE (2011): THE DISJUNCTION ACCOUNT

The biggest challenge in accounting for the phrasal position of Mandarin Chinese question particles is headedness. The general view regarding headedness is that it is not a random matter but one that is carefully orchestrated by a universal pattern. Holmberg (2000) argues, based on empirical evidence from the Finnish language, that the universal constraint on headedness should only allow a head-initial phrase to have a head-final clause as complement, but not vice versa. His proposal is known as the Final-Over-Final Constraint (FOFC):

13) The Final-Over-Final Constraint (FOFC)

\[
\text{If a phrase } \alpha \text{ is head-initial, then the phrase } \beta \text{ immediately dominating } \alpha \text{ is head initial. If } \alpha \text{ is head-final, } \beta \text{ can be head-initial or head-final.}
\]

(Holmberg 2000: (124))

Given FOFC, a configuration where a head-initial phrase is dominated by a head-final phrase will be ruled out, but such configuration, as in (14), would be the configuration for Mandarin Chinese sentence-final particle questions were the particle to be base-generated in C\textsuperscript{0}.

14) *

\[
\begin{array}{c}
\beta P \\
\alpha P & \beta \\
\alpha & \\
\end{array}
\]

\[\begin{array}{c}
\beta P \\
\alpha P & \beta \\
\alpha & \\
\end{array}\]

________________________________________________________________________

\textsuperscript{10} Aldridge’s (2011) paper was originally presented at the Workshop of Particle held at the University of Cambridge in 2008, and was later published in \textit{Linguistic Review} in 2011. There is not much difference, if any, between these two versions.
Aldridge (2011) argues for an alternative approach that explains the seemingly FOFC violation in Mandarin Chinese particle questions. In light of the prevalent view that Mandarin Chinese sentence-final particles originate historically as a sentence-final negative element (See my review in section 2.1.1), Aldridge assumes a general configuration that underlies Mandarin Chinese alternative questions, A-not-A questions, sentence-final ‘negative’ questions and particle questions in Mandarin Chinese, as in (15)\(^{11}\). They are all underlyingly disjunctive questions.

\[
\text{A sentence-final negative question is exemplified as follows:}
\]

\[16\]

你喝茶\,\,不?

\text{nǐ hé chá bù}

you drink tea \textbf{Neg}

‘Do you drink tea?’

\(^{11}\) It has been assumed by Huang (1982b & 1991), McCawley (1994), Ernst (1994), Hsieh (2001), and Gasde (2004), among others, that a configuration such as (15) underlies the structure of Chinese alternative questions and A-not-A questions. The latter are considered to originate from the former.
Aldridge (2011) assumes two lexically different sentence-final negators. She states that their lexical difference explains the different times in which their grammaticalization process in Chinese history. She classifies the first type of negator as an auxiliary, exemplified by 不/否 fǒu (‘not’).

17) 子去寡人之楚，亦思寡人不？

zi qù guǎrén zhī chǔ yì si guǎrén fǒu

you leave me go Chu still think me Neg

‘You left me to go to Chu. Do you still think (fondly) of me?’

(史記 Shiji ) used as an example by Aldridge (2011: 416))

This negative auxiliary 不/否 fǒu (‘not’) functions as a predicate and is observed by Aldridge (2011) to never occur with a complement. Therefore, she assumes that this negative auxiliary enters into the vP coordination by isolation. To explain the isolated occurrence of the sentence-final negator, she assumes a disjunctive head (&) that takes the negative auxiliary, i.e., the negator 不/否 fǒu (‘not’), as its complement, as shown in (18). The disjunctive head (&) is assumed by Aldridge (2011) to carry two features: [uQ] and [uNeg]; it selects the auxiliary negator with the [Neg] feature as a disjunct. The [uNeg] head serves as the goal motivating the probe, the negator, to move into the disjunctive head (&); the negator’s further merge to C is motivated by the negator’s acquisition of [uQ] at &. Aldridge (2008/2011) claims that this head movement is accompanied by semantic bleaching, a proposal borrowed from Roberts and Roussou (2003). Semantic bleaching, she argues, results in the removal of the agreement restriction pertaining to Mandarin Chinese negators, allowing them to occur with greater varieties of predicates.

The final stage of the grammaticalization process materializes in the negator’s base-merge in C.

12 Aldridge (2011) argues that the character 不, which is pronounced as bù in modern Mandarin Chinese, should be pronounced as fǒu in archaic Chinese when used as an auxiliary.

13 There are several different negators in Mandarin Chinese. The selection of negators is constrained by the aspect of the sentence. For example, a verb with the past participle aspect marker 過 guò, an exponent to the verb, only selects the negator 沒有 méiyou3.
The second type of sentence-final negator is 無 wú (‘not’), which Aldridge identifies as a lexical verb. Observing that wú is not seen occurring sentence-finally until Middle Chinese (the 5th century), Aldridge (2011) argues that wú is required to occur with NP complement in archaic Chinese. She further argues that “null objects were typically not allowed in archaic Chinese” (p. 438). To explain how the lexical verb negator 無 wú is etymologically related to question particle 嗎 ma in Modern Mandarin Chinese, Aldridge (2011) puts forth a proposal that is based on phonological evidence backed by several Chinese linguists such as Wang (1958), Zhong (1997), among others. She begins by explaining what blocks wú from occurring in isolation in the first place – a hindrance that did not exist for auxiliary-type negator fōu during its grammaticalization process. Taking her cue from the proposal that null pronominalization in object position in modern Chinese results from lexical verbs raising out of VP followed by remnant VP deletion (Huang 1991a; Otani & Whitman 1991), Aldridge (2011) argues for the opposite. She states that the non-occurrence of null pronominalization in archaic Chinese is caused by the inability of lexical verbs’ raising out of VP. She argues that the lack of verb-raising out of VP results in the lack of

\[ \text{(Aldridge 2011: (416))} \]

\[ 14 \] In addition to the removal of agreement selection, Aldridge (2011) also states that fōu, which originally only occurs with intransitive predicates, can then be paired with transitive predicates after it is grammaticalized since Han dynasty (approximately the 2nd century).
clausal-final *wú* in either questions or answers in archaic Chinese. Example (19) is an example used by Aldridge (2011) to demonstrate how the negator 無 *wú* is accompanied by NP complement in archaic Chinese.

19) 夫曰：「何客也？」

夫說 what guest PT

其妻曰：「無客。」

其妻 say not.exist guest

'The husband asked, “Who was the guest?”’ His wife answered, “There was no guest.”’

(Aldridge (2011) argues that the occurrence of *wú* in the sentence-final position in Middle Chinese suggests a categorical change of *wú*, and thus it should be treated on par with negative auxiliary *fǒu* from that point on.

20) 問曰：天下為有為無？

問 say world take.as exist take.as not.exist

‘One asked, “Should we take the world to exist or not exist?”’

答曰：亦有亦無。

答 say also exist also not.exist

‘(The Buddha) answered, “It exists and it doesn’t exist.”’

She argues that once *wú* acquires the ability to move out of VP – something that it was unable to do when it was just a lexical verb – followed by remnant VP deletion, *wú* follows the grammaticalization path *fǒu* takes to
become integrated with the disjunctive head, which she notates as ampersand (&), and, ultimately, wú becomes base-generated in C. (21) illustrates the grammaticalization process of the lexical verb wú.

21)

![Diagram](Aldridge 2011: (60))

It is important to note Aldridge (2011) considers that (18) and (21) demonstrate only the grammaticalization process of sentence-final negators in questions and they are not the final configurations. She argues that the grammaticalized negators are base-generated high, an account she proposes based on their ability to occur with negative predicates.

22) [無諸惡] 不?

[wú  zhū  è ] fǒu

not.have  DET.PL  evil  not.be

‘Are (you) free of the various irritations?’

(Aldridge 2011: (22))
Aldridge (2011) proposes that the final configuration exhibits a clausal disjunction that occupies the head of ForceP\textsuperscript{15}, which is part of the functional CP domain, taking the first TP as its specifier and the second TP as its complement. The second TP is then phonologically elided. Aldridge’s configuration is adapted and shown below:

23) 

\[
\begin{array}{c}
\text{ForceP} \\
\text{TP} \quad \text{Force'} \\
\text{Negator+} \\
\ff / \wnu
\end{array}
\]

(Adapted from Aldrige (2011: 48))

Eventually, Aldridge (2011) concludes, modern Mandarin Chinese sentence-final question particles are ‘reanalyzed’ as a simple C-final particle taking a TP complement, a consequence from the lack of learner input concerning the existence of a disjunction. In her words, “without robust evidence that a disjunction exists, learners acquiring the language would opt for the simpler analysis in which the TP to the left of the \wnu is analyzed as its complement, rather than positing a second TP which is later deleted” (p.443).

24) 

\[
\begin{array}{c}
\text{CP} \\
\text{TP} \\
\cq
\end{array}
\]

(Aldridge 2011: (62))

How does this C-final configuration not violate FOFC? Aldridge’s (2011) argument is based on the claim by Biberauer et al. (2009). According to them, categorically deficient particles are excluded from FOFC. Aldridge (2011) therefore argues, since Mandarin Chinese question particles have long lost their negative feature as well as their

\textsuperscript{15} This proposal is based on the split CP hypothesis by Rizzi (1997) and the claim made by Jayaseelan (2001) regarding the disjunctive operator’s occupancy of the head of ForceP.
association to disjunction during the grammaticalization process and learners’ acquisition, they are deficient and therefore qualify for the exclusion.

The diachronic account of modern Mandarin Chinese question particles in Aldridge (2011) is in many ways appealing; however, in the grand schemes of things, it still leaves some questions unanswered, especially regarding the synchronous varieties and use of question particles.

The diachronic syntactic account for ‘Chinese question particles’ is, in fact, developed with a focus on the historical evolution of modern ‘Mandarin Chinese -ma particle’ only, leaving other sentence-final question particles untouched. With great synchronic differences among those particles in terms of their meaning and use in contemporary Chinese, it is unlikely that all of the question particles have followed the same path of development, i.e., to originate as a sentence-final negator in yes-no questions. For example, Aldridge (2011) assumes the position of question particles, or Q particles as she calls them, to be base-merged ‘high’ in C-head in contemporary Chinese, as shown in the configuration (24) above, and therefore, the inability to be embedded under a matrix clause, she argues, is due to “the fact that there is no position for a Q particle in embedded yes/no questions” (Aldridge 2011:421).

25) a. 我不知道[他在不在]。

wǒ bù zhīdào [tā zài-bú-zài]

I Neg know he in-not-in

‘I don’t know whether he is here.’

b. *我不知道[他在嗎]。

wǒ bù zhīdào [tā zài ma]

I Neg know he in MA

Intended: ‘I don’t know that [he is here?]’

16 It is unclear to me what Aldridge (2011) means by “no position” at the embedded clause. It could mean that embedded question particles do not produce a direct-question reading; it could also be due to her stipulation of the high position for question particles. I will assume the latter.
Indeed, if question particles are base-merged in matrix CP, then the structure should only allow a matrix interrogative reading. Unfortunately, it is not as simple as that. Compare the contrasting (26a & b). Suppose the addressee is planning to invite John, who is known to be an anti-social person, to a birthday party. In the first scenario, you are guessing that John is invited because the addressee thinks John will come, but you are not certain. So you ask the addressee a confirmation question such as (26a) to confirm your speculation. In the second scenario, you think that the addressee believes John will come to the party, and you think the addressee is wrong. Thus, you make a request that the addressee re-think/reconsider his belief that John will come to the party, as in (26b). In this case, the ma particle has downstairs interpretation, and the evidence is the availability of a topicalized alternative, as in (26b’).

26) a. 你想[他會來]嗎?
   nǐ xiǎng [tā huì lái ]ma
   you think [he will come] MA
   ‘You think he will come?’

   b. 你想(想) [他會來].
   nǐ xiāng(-xiāng) [tā huì lái ma].
   you think(-think) [he will come MA ]
   ‘You [should] (re-)think [your belief that] he will come.’

   b’. [他會來嗎]? 你想(想).
   [tā huì lái ma]? nǐ xiāng (xiāng).
   he will come MA you think(-think)
   ‘He will come? [It is the belief] you [should] re-think.’

Another issue is that the base-generation of ‘Q’ in C-head predicts that sentence-final question particles and other interrogative expressions do not co-occur in one sentence. In Aldridge (2011), as shown below, the [Q] feature carried by the disjunctive head (&) plays a pivotal role in deriving interrogative reading in root A-not-A
questions, an analysis based on Cheng’s (1990) the Clausal Typing Hypothesis in which clauses are ‘typed’ interrogative at C-head. As Aldridge (2011: 432) puts it, “the [uQ] feature on & had to enter into an Agree relation with the [Q] feature on C.” Since the A-not-A expression carrying the [uQ] feature must be in a local relation with the interrogative C-head, a base-generated particle on C would not be possible.

27)

(Aldridge 2011: (36))

But, while Aldridge’s (2011) analysis successfully predicts that ma and ba does not co-occur with interrogative expressions such as A-not-A, as shown in (28a), it does not explain why ne can co-occur with it, as shown in (28b). Of course, she could potentially argue that ne is a different type of question marker – one that might require the projection of a separate FOFC-satisfying functional category to accommodate its existence – but it is not mentioned at all in her analyses, and, most importantly, the tacit consensus, especially those based on Cheng’s (1991) Clausal Typing Hypothesis, including Aldridge’s (2011), is that ne, just like ma and ba, is a question marker in Mandarin Chinese. In any case, any account that prescribes Mandarin Chinese particle questions as ones whose interrogative meaning is derived from the structurally encoded ‘Q’ must also be able to explain the structural constraints on the use of the three ‘question particles’, ma, ba and ne. Unfortunately, Aldridge’s (2011) does not.
28) a. *你要不要來/吧？

nǐ yào bù yào lái ma/ba

you want-not-want come MA/BA

Intended: ‘?’(I am confirming the following question) Do you want to come?’

b. 你要不要來呢?

nǐ yào bù yào lái ne

you want-not-want come NE

‘Do you want to come?’

2.1.3 RECOUNT: SYNCHRONIC MANDARIN CHINESE PARTICLES: MA, BA, AND NE

While the historical development of Mandarin Chinese question particles gives us insights into how these particles are grammaticalized and semantically bleached, it is equally, if not more, important to develop an account that offers explanations and predictions about the contemporary Mandarin Chinese question particles. Since they have gone through a long period of development, it is reasonable to jettison much of the historical baggage that does not explain the synchronic meaning and use of the modern particles.

As I stated in the beginning of this section, none of the three commonly used particles in Mandarin Chinese questions, namely, ma, ba and ne, qualifies to be ‘question particles’. They are not the necessary components to make questions; sentences without them can still be used as questions. Their occurrence in the structure is not to ‘type’ a sentence interrogative nor is it to assign an interrogative function. Rather, I have argued that they contribute different [speakers’] presuppositions to the questions asked. And just because each of them conveys a particular type of presupposition, the type of question that can co-occur with each particle is constrained. This, as I will argue in details in the following, explains why ma and ba must co-occur with a structurally complete clause, and ne must co-occur with a structurally incomplete clause. Since this constraint is caused by the compatibility between presuppositions, i.e., what open/confirmation questions presuppose and what ma/ba/ne presupposes, I argue that the unavailability of a mismatched question-type and particle pair is not a grammatical issue – that is, they are grammatical but ‘unhappy’.
Therefore, I call these three particles ‘presupposition particles’.

### 2.1.3.1 PRESUPPOSITION PARTICLES

#### 2.1.3.1.1 Ma

Ma questions have been viewed on par with yes-no questions and have been assumed as equivalent to A-not-A questions (Li & Thompson 1981, Huang 1982b, Chu 1998, Li 2006, Huang et al. 2009, among others). I speculate that this common misunderstanding is caused by the (sometimes) shared answers elicited from these two question-types (à la Karttunen 1977). As shown in the Q&A in (29 & 30), both question-types share the same set of possible (short) answers: 抽 chōu ('(I) smoke') or 不抽 bù chōu ('(I do) not smoke'). But, a largely ignored fact is that only the ma question, which I argue to actually be a confirmation question, can be answered with 對 dui ('correct') or 不對 bù dui ('incorrect'), as shown in (29). Most important of all, speakers of ma questions present themselves differently from A-not-A questions. Suppose you visit your friend’s house and you see an ash tray lying on the table. If you suspect that your friend is a smoker, then a ma question such as (29) straightforwardly presents you as having that suspicion. An A-not-A question such as (30) merely presents you as being neutral about your friend’s smoking habit, i.e., you do not know if your friend smokes. Although these two question-types lead to the same answer, the choice of question-types conveys speakers’ different attitudes, i.e., confirmation or open. In any case, these two question-types are not ‘interchangeable’.

29) Q: 你抽煙嗎？
   nǐ chōuyān ma
   you smoke MA
   ‘You smoke?’
   A: 抽/不抽。對/不對。
     chōu/ bù chōu. dui / bù dui
     ‘(I) smoke/ (I do) not smoke. Correct/incorrect.’

30) Q: 你抽不抽煙？
nǐ chōu bù chōu yān
you smoke-not-smoke.cigarettes
‘Do you smoke?’
A: 抽/不抽。
chōu bù chōu
‘(I) smoke/ (I do) not smoke.’

Interestingly, the widely cited Li & Thompson (1981, 1982) have also taken note at the (non-)neutrality that differentiates ma questions from A-not-A questions. They observe that ma questions are non-neutral and they bring in assumptions about the corresponding statement, which A-not-A questions do not. And yet, Li & Thompson (1981, 1982) still categorize ma questions and A-not-A questions as the same type of questions. It only goes to show that their categorization of question-types is based solely on the answers, while completely disregarding what each question-type is used for. The root of this sort of mistakes is captured by Chu’s (1998) remark of ma questions and A-not-A questions, “…the questions...are equivalent propositionally but not pragmatically” (p.122).

The particle ma must occur following a structurally complete clause, which, without ma, can be used to ask a confirmation question. I argue that the addition of ma presents the speaker as not presupposing a positive or negative confirmation. In other words, a speaker of a ma question, though having an insufficient belief $p$, presents himself as being neutral about whether the addressee will confirm or deny $p$. So when you ask (29), you express that you guess your friend might be a smoker, but you do not know if you are correct about it. Finally, because ma presents speakers as not presupposing the confirmation or denial of a belief $p$, the clause that preceding it naturally has to be one that can convey the proposition $p$ – hence the requirement that ma must follow a structurally complete clause.

2.1.3.1.2 **BA**

Li & Thompson (1981:307-311) considers the particle ba as a particle that solicits ‘agreement’, and therefore, all the ba questions can be interpreted as ‘Don’t you agree…?’ But there are at least two problems with their account.
First, the ‘soliciting agreement’ explanation only works if the subject is not second person, as in (31a). A second-person subject, such as (31b), would render a translation as *Do you agree that you drink tea?* Obviously, speakers do not seek the addressee’s agreement on an action that the addressee himself does.

31) a. 你哥哥喝茶吧?
    nǐ  gēge  hē  chá ba
    you elder.brother drink tea BA
    ‘Your elder brother drinks tea? (Your elder brother drinks tea, correct?)’

b. 你喝茶吧?
    nǐ  hē  chá ba
    you drink tea BA
    ‘You drink tea? (You drink tea, right?)’

Second, *ba* is not always used to seek agreement. A sentence such as (32a) is used to suggest the addressee to have some tea, but (32b) is used to remind the addressee to bring keys.

32) a. 喝点茶吧?
    hē  diǎn chá ba
    drink a.little tea BA
    ‘Drink some tea? (Drink some tea, ok?)’

b. 鑰匙带了吧?
    yàoshī  dài le  ba

---

17 Chao (1968:807) provides a *ba* example where this particle is used in conjunction with a wh-word.

你到底要什麼吧?
    nǐ  dàodǐ  yào  shénme ba
    you  after.all  want  what BA
    ‘What do you want after all?’

Since this type of use does not exist in my dialect nor do I hear people talk this way around me or on television/movies, I do not discuss this use in this paper.
Chu (1998) correctly observes that ba questions express speakers’ uncertainty, but he has a strange way to account for it. He states that “if we claim that the particle ba expresses the modality of speaker’s uncertainty, then this modality meaning should be more appropriately interpreted as superimposed over the question itself rather than any portion of the question. In other words, ba here indicates that the speaker is not quite sure about the act of asking the question rather than about the content of the question…… the interpretation should be: I am not quite sure if the question should be asked, though I am asking……” (p.136). Chu’s (1998) account exemplifies the common confusion about the form and the use. Uncertainties are expressed through the use of ba questions; the particle ba itself does not mean uncertainty.

Li (2006) takes a step further to argue that ba particles mark speakers’ ‘low predictability’ of the answer, and it shows that the speaker “barely knows, and thus strongly requires the answer…marks (the degree)...with respect to the strength the speaker’s intention to have an action carried out, i.e., to elicit the answer from the hearer” (p.35). It is curious what Li (2006) means by ‘barely knows’. One either knows or does not know; there is no middle ground. When you say I kinda/sorta know that P, you mean you know that P in a way; when you say I barely know that P, you mean that you hardly know it at all. The point here should not be about whether or not one knows, but about whether or not one has sufficient belief in what he knows. Thus, the ‘strength’ Li (2006) has in mind is actually the strength of speakers’ belief in P, not the strength of speakers’ ‘predictability of the answer’. Equally curious is Li’s (2006) description of ba questions as uttered by speakers who strongly demand answers. It is hard for me to comment on that because I do not have the same sense. But I would guess that it also stems from the misunderstanding that the particle ba conveys speakers’ ‘low predictability of the answer’ and that ‘low predictability’ is translated into stronger demands.

The particle ba always occurs following structurally complete clauses. Being used sentence-finally in questions, ba presents speakers as being unable to warrant the proposition preceding it. Thus, questions (31a & b), as repeated in the following, are asked when speakers do not have sufficient belief to assert the proposition that
Your brother drinks tea and You drink tea, respectively. My account explains the observation Li & Thompson (1981) make about ‘soliciting agreement’ but without the problem associated with the deictic restrictions of the subject.

31) a. 你哥哥喝茶吧？

nǐ gēge hē chá ba

‘Your elder brother drinks tea? (Your elder brother drinks tea, correct?)’

b. 你喝茶吧?

nǐ hē chá ba

‘You drink tea? (You drink tea, right?)’

Moreover, because the ba particle expresses speakers’ inability to assert, it consequently exhibits speakers’ ‘uncertainty’, a characteristic observed by Chu (1998). But unlike Chu (1998), I do not consider ‘uncertainty’ as a modality with wide scope, but rather a byproduct of uttering confirmation questions. It happens as a result of asking confirmation questions, as opposed to being the cause of confirmation questions.

The particle ba occurs following a structurally complete clause, just like ma, and both ba questions and ma questions are used to ask confirmation questions. What differentiates them? I argue that ba, unlike ma, presents speakers as presupposing a positive confirmation, and because of this marked characteristic, ba questions are commonly used among family, close friends or people within their own social economic ranks. After all, presupposing a positivie confirmation when asking a confirmation question is usually associated with one’s presumptuousness, arrogance, and other sorts of negative attitudes. But if used with the right people: your family, close friends or people within your social economic circle, this presupposition is usually instead taken as the conveyance of familiarity and closeness.

In general, all confirmation questions can be used to make offers or reminders if the subject is the addressee. By presenting ourselves as not certain about p where p denotes the addressee’s action, we are taken as hoping, suggesting or reminding that the addressee does/did it. My differentiation between ba and ma explains why the
former is more appropriate when the addressee is close to you. Under normal circumstances, no one wants to behave forceful or demanding, no matter what your intention is. You would not want to talk in such a way that the tea you offer to your boss is presupposed to be accepted, as in (32a). But if the person you are offering the tea to is your best buddy, the same presupposition in your utterance may be taken to show that you know him well enough that you know he will drink the tea or that you know he should drink the tea. The ba question conveys your closeness and familiarity with him. Asking a ba question such as (32b) to your brother before shutting the door to your house has a similar effect. By asking a marked confirmation question, you present yourself as not trying to be polite, which is taken as your conveyance of closeness, given your relation to your brother.

32) a. 喝點茶吧?
   hé diǎn chá ba
   ‘Drink some tea? (Drink some tea, ok?)’

b. 鑰匙帶了吧?
   yàoshi dài le ba
   ‘(You) brought the keys? (You brought the keys, right?)’

One may wonder how negative ba questions work, since using ba questions presupposes positive confirmation. As shown in (32a’ & b’), the negation negates the predicates. So speakers still presupposes a positive confirmation – it is just that it is a positive confirmation of a negative proposition.

32) a’. 你不喝茶吧?
   nǐ bù hé chá ba?
   ‘You don’t drink tea, right?’

b’. 你沒帶鑰匙吧?
   nǐ méi dài yàoshì ba
you NEG bring key BA

‘You didn’t bring the keys, right?’

2.1.3.1.3  **NE**

The particle *ne* occurs following structurally incomplete clauses, as shown in (33a-d). Because structurally *incomplete* clauses are traditionally viewed as ‘questions with Q’, *ne* is hence commonly taken as a Q particle in syntactic analyses. In the previous speech-acts analyses, *ne* is generally taken to be a ‘discourse marker’ (King 1986, Wu 2005 & 2009, Chu 2006, Li 2006, among others); however, as it is detailed later, there is no consensus as to what type of ‘discourse marker’ *ne* actually is.

33) a. 你來不來呢?
    nǐ lái bù lái ne
    you come not come NE
    ‘Are you coming?’

b. 是誰呢?
    shì shéi ne
    SHI who NE
    ‘Who?’

c. 哥哥還是弟弟呢?
    gēge háishì didi ne
    elder.brother or younger.brother NE
    ‘(Is it) the elder brother or the younger one?’

d. 你呢?
    nǐ ne
    You NE
    ‘How about you?’
Attempts have been made to provide a unified, discourse-based account for *ne*. King (1986) considers *ne* as an ‘evaluative device’; speakers use *ne* to make “a metalinguistic comment on the descriptive ‘background’ information in the ‘narrative world’ from his vantage point in the ‘speaker/hearer’ world or here-and-now; information marked with *ne* is thus mentioned as being of particular importance to the point the speaker is trying to make in his interaction with the hearer” (King 1986:21). But it is unclear to me how King (1986) defines background information. Wu (2009:23) argues for a unified account where the particle *ne* instructs “the hearer to pay special attention to a discrepancy which the speaker perceives as highly relevant to the current interaction and needs to be negotiated and resolved.” Still, Wu’s (2009) account falls short in explaining how the ‘discrepancy’ can apply to questions, especially questions with elided component. For example, the particle *ne* is used in daily greetings, such as (34Q & A), and this exchange does not involve any sort of discrepancy. The questioner checks if the addressee is well, and the addressee responds by asking if the questioner is well himself.

34) Q: 你好嗎?
   nǐ hǎo ma
   you well MA
   ‘You are well?’

A: 我很好。你呢?
   wǒ hěn hǎo. nǐ ne
   I very well you Ne
   ‘I am well. You yourself?’

Chu’s (1998) ‘relevance’ account and Li’s (2006) ‘evaluative’ account provide broad descriptions of the use of *ne*, but they fail to capture the distinguishable characteristics that set *ne* apart from other speech-act particles.

An important fact that is commonly missed in most analyses is that *ne* can also occur following structurally *complete* clauses, and when that happens, the sentence is used to assert. For example, an utterance such as (35a) conveys that the speaker stresses the fact that it is still raining outside, and the particle *ne* in (35b) is used to emphasize that the preceding subject 他 tā (‘he’) is what the speaker is talking about. The use of *ne* in a non-
question environment is outside the scope of my thesis, but the pattern is quite clear – when used in a structurally complete environment, ne is used to bring the listeners’ attention to the preceding element, be it a proposition, as in (34a) or a person, as in (34b). This missed fact is sufficient to show that ne cannot simply be a question marker.

35) a. 外頭還在下雨呢。

wàitóu háizài xiàyū ne
outside still rain NE

‘It’s still raining outside.’

b. 他呢，什麼都不懂，還是個孩子。

tā ne, shénme dōu bù-dǒng hái shi ge háizi
he NE, whatever all not-understand still CL child

‘As far as he is concerned, he knows nothing because he is still a child.’

It begs the question as to what ne contributes to an open question. I argue that the particle ne in open questions is also used to bring the listeners’ attention to the preceding clause, except that the attention is directed to the speaker’s ignorance. Specifically, I argue that ne questions are marked open questions. They present speakers as not presupposing that the addressee knows the answer to the preceding open question, contrary to what the speech-act of questioning normally does – you would not ask me Who killed Kennedy? if you do not think that I might, in the slightest, know the answer, as in (36a). But when you do not presuppose that I know the answer, as the marked ne question in (36b) conveys, the question is presented as open to discussion. This is why ne questions such as (36b) are frequently used to start a conversation, discussion or debate between speakers.

36) a. 誰殺了甘迺迪？

shéi shā le gānnǎidí
who kill-Asp Kennedy

‘Who killed Kennedy?’

b. 誰殺了甘迺迪呢？

shéi shā le gānnǎidí ne
Who killed Kennedy?

2.1.3.2 BARE QUESTIONS

Bare questions are structurally complete sentences without speech-act particles; they take the form of what are traditionally viewed as declarative sentences, imperative sentences, and exclamatory sentences, but are uttered with insufficient belief, which is usually marked by factors not encoded in structure, such as the variation of intonations, hand gestures, facial expressions, etc. The bare sentence-type, when used to ask bare questions, conveys propositions that are not warranted by their utterers.

37) a. 他喜歡玫瑰花。
   tā xǐhuan méiguīhuā
   he like rose
   ‘He likes roses.’

b. 他喜歡玫瑰花？
   tā xǐhuan méiguīhuā
   he like rose
   ‘He likes roses?’

38) a. 把這個字唸三遍。 (Imperative)
   bā zhè ge zì niàn sān biàn
   BA this CL word read three CL
   ‘Read this word three times.’

b. 把這個字唸三遍？ (Confirmation question)
   bā zhè ge zì niàn sān biàn
   BA this CL word read three CL
   ‘Read this word three times?’

39) a. 好美啊！ (Exclamatory)
hǎo měi  a
well beautiful
‘Very beautiful! (How beautiful!)’

b. 好美啊? (Confirmation question)
hǎo měi  a
well beautiful
‘Very beautiful? (How beautiful?)’

Bare confirmation questions are only appropriate when there is sufficient information for the addressees to establish their understanding concerning the reason the confirmation question is raised, and thus they usually convey speakers’ surprise and/or disbelief in addition to their lack of sufficient belief. I propose that bare questions distinguish themselves from the other two confirmation questions, namely, ma questions and ba questions, by presenting speakers as presupposing that the addressees know the cause of speakers’ lack of sufficient belief. Thus, Mandarin Chinese bare questions are comparable to the so-called repeat questions in English where the addressees’ understanding can be easily established because of the immediacy of the confirmation, and as with repeat questions, if used in the context where the addressees are unable to establish the correct understanding, bare questions can go wrong. Suppose the subject of a conversation has been the unmanned space cargo shuttle to the moon, but you have been thinking about a different subject – the existence of Martians on Mars. You ask the bare question (40) to confirm your suspicion that there are Martians on Mars. Because you present yourself as assuming that your friends know why you are ignorant about it while your friends, understanding what bare questions are used for, would calculate the cause of your ignorance based on the given information and might conclude that you think the cargo in question goes to Mars, there would be a misunderstanding.

40) 火星有火星人?

huǒxīng yǒu huǒxīng  rén
Mars have Mars people
‘There are Martians on Mars?’
2.2 HÁISHÌ QUESTIONS

2.2.1 WHAT ARE HÁISHÌ QUESTIONS?

Háishì-questions are disjunctive questions. They are asked when speakers do not know which of the disjuncts is true. For example, a speaker of (1a) presents himself as not knowing which direction to take, and a speaker of (1b) presents himself as not knowing which beverage the addressee wants to drink.

1) a. 我們應該往左手還是右走?
   wǒmÃn yīnggãi wâng zuò zōu háishì wâng yòu zōu ?
   we should toward left walk or toward right walk
   ‘Should we make a left or make a right?’

b. 他要喝茶，咖啡還是可樂?
   tâ yào hë chá kâfei háishì kělè?
   he want drink tea coffee or Coke
   ‘Does he want to drink tea, coffee or Coke?’

Disjunctive questions in Mandarin Chinese must be asked using the disjunctive 還是 háishì (‘or’) to join the disjuncts. When disjuncts are joined by the other disjunctive 或者 huòzhê (‘or’), the sentence can only be used to assert or ask confirmation questions. Notice the contrast between (1b) above and (1b’) below. Their only difference is the choice of disjunctives.

1) b’. 他要喝茶，咖啡或者可樂。/?
   tâ yào hë chá kâfei háishì kělè./?
   he want drink tea coffee or Coke
   ‘He wants to drink tea, coffee or Coke.’
   or
   ‘He wants to drink tea, coffee or Coke?’
In this section, I give my account of Mandarin Chinese disjunctive questions, including the differentiation between the two disjunctives háishì and huòzhē. But first, I give a brief introduction to the historical background of disjunctive questions in Mandarin Chinese and then review previous accounts.

2.2.2 THE HISTORICAL BACKGROUND OF DISJUNCTIVE QUESTIONS IN MANDARIN CHINESE

The use of the disjunctive háishì is actually a relatively new in Mandarin Chinese. According to Mei (1978), Mandarin Chinese disjunctive questions were asked with interrogative morpheme attached to each disjunct during the early Qin and Han dynasty (from approximately 300 B.C. to 200 A.D.). The common question particles seen occurring after each disjunct are 與 yǔ, 乎 hū, and 邪 yé. The following two excerpts are selected from Mei’s (1978:15) examples; pronunciation and translation are mine.

2) a. 滕，小國也，間於齊楚。事齊乎？事楚乎？
   (孟・梁惠王 Meng. Lianghui Wang)
   téng, xiǎo guó yě, jiān yú qí chú. shì qí hū? shì chǔ hū?
   ‘We, Teng, is a small country, located between Qi and Chu. Should we side with Qi or Chu?’

b. 然即國都不相攻伐，人家不相亂賊，此天下之害與？天下之利與？
   (墨・兼愛 Mo. Jiangai)
   rán ji guó dū bù xiāng gōngfá rén jí bù xiāng luàn zéi
   therefore then country NEG each.other attack family NEG each.other steal
   cǐ tiān xià zhī hài yǔ? tiān xià zhī lì yǔ?
   ‘So countries don’t start war against each other, humans don’t steal from each other. Then is it the calamity or the welfare of the world?’

According to Ohta (1958), the use of 還是 háishì (‘or’) in disjunctive questions begins in 五代 wǔdài (907-960 A.D.). His research indicates that háishì is originally used to disjoin two sentences, and it can occur in the first clause, the second clause, or both. The following examples are excerpts selected by Ohta (1959:295-296), illustrating the occurrence of háishì in those locations respectively. Their pronunciation and translation are mine.
Note that the monosyllabic 還 hái ('or') is used interchangeably with disyllabic 還是 háishi ('or') in pre-modern Chinese.

3) 還是借的是，不借的是？

háishi jiè de shì, bù jiè de shì?

or borrow DE should be, NEG borrow DE should be

‘Should I borrow it or should I not borrow it?’

4) 秀才唯獨一身，還別有眷屬不？

xiùcái wéi dú yī shēn, hái bié yǒu juānshǔ bù?

scholar only be single one individual or other have family dependent NEG

‘Are you (respectful way to call scholar) all alone or do you have a family?’

5) 再問劉姥姥今日還是路過，還是特來的？

zài wèn liú láolao jīnrì háishi lúguò, háishi tè lái de?

again inquire grandmother-liu today or pass through or especially come DE

‘[The speaker] further asks grandmother Liu: “did you just pass through or come by with a purpose?”

In Modern Mandarin Chinese, háishi occurs only between disjuncts.

2.2.3 PREVIOUS ACCOUNTS

Given the prevalent general assumption that questions are a type of sentence, accounts for háishi-questions are generally given in terms of their syntactic derivation. The following are the two general approaches.


Huang (1982a & b, 1991) assumes that the disjunctive phrase in Mandarin Chinese, which is composed of the disjunctive háishi and its disjuncts, carries a [+wh] feature and undergoes LF movement to receive interrogative interpretation. On this view, a sentence such as (6) has the following configuration.

6) 約翰要去坦尚尼亞還是肯亞？
yuēhàn yào qù tānshàngniā yā hāishi kěnyā

John will go Tanzania or Kenya

‘Is John going to Tanzania or Kenya?’

The assumption that the *hāishi*-phrases, just like the *wh*-expressions in *wh*-questions, carry a [+wh] feature arises from his belief that they are semantically on a par with *wh*-expressions. Huang (1991) states “at any rate, the semantics of disjunctive questions is similar to that of *wh*-questions, since they both may be said to involve existential quantification (in a definite or indefinite domain)” (p. 317). He goes on to provide two examples, as shown below, stating that they exhibit “little semantic difference” (p.317). However, existential quantification alone does not seem sufficient to justify the assumption of these two expressions’ semantic equivalence, not to mention their shared syntactic feature [+wh]. But no further explanation is offered about it.

7) a. 張三和李四，你喜歡哪一個？

Zhāngsān hé Lǐsì，nǐ xǐhuān nǎ yī ge?

Zhangsan and Lisi you like which one CL

‘(Between) Zangsan and Lisi, which one do you like?’

(Huang 1991: (47))

b. 你喜歡張三還是李四？

nǐ xǐhuān Zhāngsān háishì Lǐsì ?

you like Zhangsan or Lisi

‘Do you like Zhangsan or Lisi?’
Furthermore, this assumption suggests a bigger and deeper issue of Huang’s (1991) theory. It is a misconception to say that 哪 nā (‘which’) and 還是 háishi (‘or’) are existential quantifiers. Questions do not lexically presuppose the existence of true answers, because those who do not know the true answers do not and cannot logically presume the existence of them. If you do not know what ‘unicorn’ is and you ask What is ‘unicorn’? the wh-expression what in the sentence does not automatically present you as presupposing that unicorns exist. One may argue for a D-linked(ness) differentiation between what and which, and insist that the D-linked which is existentially quantificational. In his argument against the D-linked(ness), Fiengo (2007) points out that “all wh-expressions alike fall under the requirement that, to use them, one must be careful that one’s interlocutor knows what is being talked about” (p.98), and thus, asking Which student is smart? is as bad as asking Who is smart? or What student is smart? or How many students are smart? when asked out of the blue. In other words, it is the act of questioning that present speakers as presupposing the existence of the true answers, not the lexicon.

To further advance their proposal that háishi comes with a [+wh] feature, Huang et al. (2009) argue that the difference between the two Mandarin Chinese disjunctives háishi (‘or’) and huòzhě (‘or’) is their [+wh], where the former has [+wh] and the latter has [−wh]. However, having assumed that their difference is simply [+wh], Huang et al. (2009) also note that háishi and huòzhě can sometimes be used interchangeably in assertions. The following example is theirs. According to Huang et al. (2009), the interchangeability is “because the sentence can be analyzed in either way, as involving either a choice between two NPs or a choice between two propositions that may serve as answers to a (concealed) embedded question” (p.242).

8) 橘子還是/或者蘋果都好。

diagram

---

(Huang 1991: (48))

8 More detailed discussion about the D-linked(ness) proposal is in Section 2.4.
ii) ‘Whether it’s oranges or apples, [both possibilities] will do.’

(Huang et al. 2009, footnote 5, p. 242)

While they seem to assume the ramification of [±wh] is that háishi disjoins NPs and huòzhě disjoins sentences, their explanation is far from satisfactory. First of all, háishi can disjoin sentences and huòzhě can disjoin NPs. Their [±wh] does not confine (9) to a certain interpretation.

9) a. 你來還是我去？
   nǐ lái háishi wǒ qù.
   you come or I go
   ‘Are you coming or am I going?’

b. 我想喝茶或者咖啡。
   wǒ xiǎng hé chá huòzhě kāfēi.
   I want drink tea or coffee
   ‘I want to drink tea or coffee.’

Second, even if we take the occurring syntactic position into consideration and assume that háishi must disjoin NPs in the subject position, we still cannot explain why the following sentence does not sound right with either háishi or huòzhě in the subject position.

10) #橘子還是或者蘋果]很好。
   [júzi háishi/huòzhě píngguǒ ] hěn hǎo.
   [orange or apple ] very good
   ‘#Both oranges and apples are good.’

The movement approach cannot work if the question-feature cannot be appropriately assumed.
The second approach is semantic. Erlewine (2012) argues for a focus semantic treatment for Mandarin Chinese disjunctive questions, based on Beck & Kim’s (2006) focus semantic system. Let us first briefly discuss what the focus semantics system is. According to Beck & Kim’s (2006), John is the Focus (F) in a statement such as (11). It has an ordinary semantic value John, as in (11a), and a focus semantic value which is composed of a set of alternatives, as in (11b). The rationale behind the postulation that John is the Focus (F) of the sentence is not provided. Nor is it explained why the focus semantic value of John is a set of alternatives in a statement. I assume John is the focus of the statement because he is the agent of the event, but it is unclear as to why John, as the agent of the event, also denotes a set of alternative agents. I will leave this issue aside due to the scope of our discussion.

11) John left.
   a. \([[[\text{John}]])^\circ = \text{John}\)
   b. \([[\text{John}]]^f = \{\text{John, Bill, Mary, } \ldots \}\)

Now, consider a wh-question. A wh-expression also introduces a set of alternatives, as in (12a), but it is not the Focus (F) because it fails to provide ordinary semantic-value contribution like John in (11). Therefore, as shown in (12b), the ordinary semantic value cannot be defined.

12) Who left?
   a. \([[ \text{who} ]])^f = \{\text{John, Bill, Mary, } \ldots \} = \text{Defined (D)}
   b. \([[ \text{who} ]])^\circ \text{ is undefined}

(Adapted from Beck & Kim 2006: (49))

Because the ordinary semantic value of who is undefined, compositionally, the ordinary semantic value of \([_\text{a who left}]\) with the category label \(\varnothing\) is also undefined, as in (13a & b). Crucially, because Beck & Kim (2006) assume that “a structure that cannot be assigned an interpretation is ungrammatical” (p.178), an interpretation such as (13) is, hence, ungrammatical at this point of evaluation.

13) \([_\text{a who left}]\)
a. \( [[ \emptyset ]]^o \) is undefined

b. \( [[ \emptyset ]]^f = \{ p : p = \lambda w. x \text{ left in } w | x \in D \} \)

(Beck & Kim 2006: (49))

Beck & Kim (2006) argues that in order for \( \text{who} \) to receive interpretation, a c-commanding Q-operator must be involved. They assume that the Q-operator takes the task to “lift the focus semantic value of its sister to the level of ordinary semantics” (p.177), as illustrated in (14a & b), and the sentence can then receive interpretation, as in (15).

14) \([Q, [w \text{ who left }]]\)

a. \( [[ Q \emptyset ]]^o = [[ \emptyset ]]^f \)

b. \( [[ Q \emptyset ]]^f = \{ [[ Q \emptyset ]]^o \} \)

(Beck & Kim 2006: (50))

15) \( [[ [Q, [w \text{ who left}]] ]^o = [[ [w \text{ who left}]]^f = \{ p : p = \lambda w. x \text{ left in } w | x \in D \} \)

(Beck & Kim 2006: (51))

Following the focus semantics system proposed by Beck & Kim (2006), Erlewine (2012) proposes that the disjunctive \( \text{hāishi-questions} \) should be analyzed in line with \( \text{wh-interrogatives} \). Based on his analyses, a sentence like (16) would have a defined focus semantic value which is a set of propositions, as in (17a), and an undefined ordinary semantic value, as in (17b). The focus semantic value is derived from the disjunctive \( \text{hāishi-phrase} \).

16) 約翰要去坦尚尼亞還是肯亞(呢)?

yuēhàn yào qù tânsângniyā hāishi kěn yā (ne)

John will go Tanzania or Kenya (NE)

‘Is John going to Tanzania or Kenya?’

17) a. \( [[ \text{TP} ]]^f = \{ \text{John will go to Tanzania, John will go to Kenya} \} \)

b. \( [[ \text{TP} ]]^o \) is undefined
Erlewine (2012), following Cheng (1991), assumes that there is an optional sentence-final particle *ne* in all questions, and this particle *ne* functions as the interrogative complementizer Q that lifts the focus semantic value of TP into an ordinary semantic value for interpretation, as shown in (18). But there is an issue with his assumption about *ne*. As I have argued in section 2.1, the sentence-final particle *ne* is not a question marker. Questions do not need this sentence-final particle *ne* to be questions, and its occurrence does not make questions any more ‘question’ than one without it. In fact, it merely presents speakers as not presupposing that the addressee knows the answer. In other words, *ne* in no way functions as a ‘question marker’. If the particle *ne* is not a question marker, then it should follow that it cannot lift the focus semantic value into an ordinary one, as proposed by Erlewine (2012).

\[
18) \quad [[Q \text{ TP}]]^S = [[\text{TP}]]^I
\]

(Erlewine 2012: (6))

As for the postulation of focus semantic values, I think they serve only to provide a set of possible answers for questions à la Karttunen (1977); it is futile beyond that point. Beck & Kim (2006) state that “the availability of the [English] AltQ [disjunctive question] reading depends on intonation” and that “intonation suggests that focus assignment [in (19a)] on the AltQ reading is as in [[19b]]” (p.166). I agree that intonation, at least in English, does function as a linguistic signal, but what I cannot agree on is that intonation serves the purpose they think it does, that is, to assign semantic values.

\[
19) \quad \begin{align*}
\text{a. Did Sally teach SYNTAX or SEMANTICS?} \\
\text{b. Did Sally teach [Syntax] or [Semantics]?}
\end{align*}
\]

(Beck & Kim 2006: (6))

Erlewine (2012) does not define how focus semantic values are assigned to Mandarin Chinese *hāishi*-phrases, but he assumes that they have ‘local’ foci, i.e., the smallest disjuncts possible, as I have exemplified in (20a). He also assumes that a sentence obtains the focus semantic value ‘compositionally’, as illustrated in (20b). Following Beck & Kim (2006), Erlewine (2012) maintains that the ‘ordinary’ semantic value of TP remains undefined until an
interrogative operator Q comes into play. As he states, “I assume that the interpretation of a complete structure is the ordinary semantic value of its root node” (p.3).

20) a. [Kenya], háishi [Tanzania],

b. The computation of the focus semantic value of (16):

\[
[[ \text{Kenya} \, \text{háishi} \, \text{Tanzania} ]] = \{ \text{Kenya, Tanzania} \}
\]

\[
[[ (16) ]] = \{ \text{John will go to Tanzania, John will go to Kenya} \}
\]

Based on and adapted from Erlewine (2012: (4))

Erlewine (2012) considers island sensitivity, intervention effects, and the position of the focus marker shi to be the three supporting pieces of evidence for his focus semantic computation for háishi-questions. I discuss them in the following.

**Island-sensitivity**

Erlewine (2012) argues that his non-movement proposal explains what Huang’s (1991) movement proposal cannot. He points out that Huang (1991), whose proposal states that háishi is not subject to island conditions, fails to predict that háishi is, in fact, sensitive to wh-island, as shown in (21a). He argues that, as illustrated in (21b), the unavailability of the question interpretation in (21a) is due to the unavailability of focus value in CP₂, because Q₂
has already converted the focus semantic value inside it into an ordinary semantic value, leaving no more focus semantic value to be interpreted at CP1 level.

21) a. *你想知道[wh-island 誰喜歡李四還是王五]呢?
   nǐ xiǎng zhīdào [wh-island shéi xīhuān Lí sì háishì Wáng wǔ] (ne)?
   you want know who like Lisi or Wangwu (NE)
   Intended: ‘Is it Lisi or Wangwu that you wonder who likes _____?’

   b. [CP1 Q₁ you wonder [CP2 Q₂ who like [Lisi háishì Wangwu]]]
   (Erlewine 2012: (15))

   However, what both Huang (1991) and Erlewine (2012) fail to recognize is that the problem with a sentence like (21a) has nothing to do with island extraction or the lack of ordinary semantic value. The reality is that two types of open questions simply cannot be asked in one sentence. Take (21a) for example, if you do not know who likes Lisi or Wangwu, it would be meaningless for you to then ask in a single sentence if it is Lisi or Wangwu that the person you do not know likes. It is not a violation pertaining to the embedded disjunctive clause or even grammar; it is just not how we talk. Hence, the Chinese equivalent of the simpler sentence, Is it Lisi that you wonder who likes? is equally bad, and it is bad for the same reason – we do not ask a question that presents our ignorance about someone and, in the same breath, about whether this individual that we have no knowledge of does something.

**INTERVENTION EFFECTS**

The intervention effect was originally proposed by Beck (2006) to explain the unacceptability of sentences in which an intervener stands in between a wh-expression and its interrogative complementizer Q. Under this view, for example, the lack of disjunctive-question reading in (22a) is due to the negation operator intervening between the Q-operator and the in-situ wh-expression, as shown in the schema in (22b).

22) a. *Didn’t Sue read Pluralities or Barriers? (Beck & Kim 2006: (26a))

   b. *[Q ... [ Op [ø...XPf ... wh ...]]] (Beck 2006: (37b))
Erlewine (2012) argues for a similar intervention effect in Mandarin Chinese. He maintains that the lack of *disjunctive*-question reading in (23) is caused by the negation operator 不 (‘not’) intervening between the focused háishi-phrase and its associated Q-operator. However, his grammatical judgment seems to be quite different from mine on this one. A question such as (23) is no short of a *disjunctive* question. It presents the speaker as being ignorant concerning which household chore the subject does not like to do. The negation which occupies a higher position is transported to the lower two disjunctive segments and the sentence expresses that [Do you not like sweeping the floor] or [do you not like doing the dishes]? – exactly what Erlewine (2012) says it fails to express.

23) 你不喜欢[扫地]还是[洗碗]? (ne)

nǐ bù xīhuān [sǎodi] háishi [xǐwǎn] (ne)?

you NEG like [sweep.floor] or [wash.dishes] Q

‘Do you not want to sweep the floor or not want to wash the dishes?’

(Erlewine 2012: (21))

The second type of intervention effect in Mandarin Chinese, according to Erlewine (2012), exhibits in so-called ‘subject focus’ sentences. A subject-focus sentence, using two examples from Beck & Kim (2006), are shown in (24a & b). This type of intervention effect takes place, according to Beck & Kim (2006), when quantificational expressions such as *only* and *even* intervene between the Q-operator and the disjunctive phrase, resulting in the unavailability of *disjunctive*-question reading. Beck & Kim (2006) hold that this type of intervention effect occurs when the subject is the Focus (F) of the sentence, and they note that this type of intervention effect can also be observed in German. But there is an issue. Beck & Kim (2006:166) propose that it is the intonation that determines the Focus (F) assignment. A rising intonation (↑) gives the subject the Focus (F); a non-rising intonation (↓) gives the *disjunctive*-phrase the Focus (F). In the case of (24a & b), the subjects receive Focus (F) because the sentences are pronounced with a rising intonation, and that in turn induces the intervention effect because *only* and *even* becomes the intervener between the subject and the Q-operator. In other words, Beck & Kim (2006) think the rising pronunciation causes their ungrammaticality, but it is a mistake. Sentences (24a & b) do not have to be utterances to go wrong. If I silently read these sentences on my computer screen and I take them as being used to
ask *disjunctive* questions, though without being pronounced, these sentences still sound *wrong*. What makes these sentences sound *wrong* is not how the grammar is applied but what they are *used* for (or taken as being used for).

24) a. *Did only* [John], drink coffee or tea ↑?
    b. *Does even* [John], like Mary or Susan ↑?

(Beck & kim 2006: (28b & c))

Nonetheless, as a general trend to integrating *use* into grammar, Erlewine (2012) bases his focus-semantics system for Mandarin Chinese *disjunctive* questions on it. He argues that *是* ('TBD') and *只有* ('only') are the Chinese version of subject focus markers. They are intereners in sentences such as (25a & b), and their presence results in non-*disjunctive* question interpretations. Although Erlewine’s (2012) subject focus account does not involve pronunciation, a different set of issues arises. First, assuming that (25a & b) are ungrammatical because the disjunctive *háishì* fails to be associated with the Q-operator due to the intervening focus operators *是* and *zhǐyǒu*, one should expect that when the interrogative disjunctive *háishì* is replaced with a non-interrogative disjunctive *huòzhě*, the ungrammaticality could be remedied. But this is not the case. The sentences would sound equally bad – an indication that the matter is not that straightforward.

25) a. *是* [張三], 吃了 [蘋果] 還是 [橘子] (呢)?

    *是* [Zhāngsān], chī le [píngguǒ] háishì [júzǐ] (ne)?

    Intended: ‘Was it an apple or an orange that was only Zhangsan who ate _____?’

b. *只有* [張三], 吃了 [蘋果] 還是 [橘子](呢)?

    *只有* [Zhāngsān], chī le [píngguǒ] háishì [júzǐ] (ne)?

    only Zhangsan eat.ASP apple or oranges Q

    Intended: ‘Was it an apple or an orange that only Zhangsan ate _____?’

---

19 I think what *是* deserves more research before one can finalize its actual meaning and function, which I have yet to find a satisfactory explanation. I will not go into detailed discussions about *是*. I do not think it is similar to a copula or a regular verb, nor do I consider it as a focus marker.
Second, without going into the details of what they really are, my understanding of shì (‘TBD’) and zhǐyou (‘only’) is that they present speakers as *assertive* of the NPs they qualify and, compositionally, speakers of shì and zhǐyou (‘only’) that qualify NPs *assert* the whole proposition, as exemplified in (26a & b). Therefore, I think there may be some lexical restriction on what type of complement they can take. And what Erlewine (2012) claims to be the exhibition of intervention effect may as well be a subcategorization issue.

26) a.  是/只有[約翰]沒有帶課本。

shi/zhǐyou yuèhàn méiyǒu dài kèběn.

SHI/ZHIYOU  John   not  bring textbook

SHI:  ‘It is John who didn’t bring the textbook.’

ZHIYOU:  ‘John is the only one who didn’t bring the textbook.’

b.  他是/只有[一個人]。

tā shì/zhǐyou yī ge rén.

he SHI/ZHIYOU one CL person

SHI:  ‘He is by himself.’

ZHIYOU:  ‘He is the only one.’

**THE POSITION OF THE FOCUS MARKER SHÌ**

Citing Paul & Whitman (2008) and Erlewine (2010), Erlewine (2012) assumes that the morpheme 是 shì is a focus marked, and it ‘optionally’ takes VP or TP as its complement and assigns them focus value. The following examples are Erlewine’s (2012):

27) a.  我(是)想[掃地]。

wǒ (shì) xiǎng [sǎodì].

I  SHI want sweep.floor

‘I want to sweep the floor’ (not washing the dishes).
b. (是猫)偷走了魚。

(shi) [māo] tōuzōu le yú.

SHI cat steal.away ASP fish

‘The cat stole the fish’ (not the fish).

c. (是)電腦自己當機了。

(shì) [diànnǎo  zìjǐ dāngjī le].

SHI computer self crash ASP

‘The computer crashed’ (not because of other reasons).

(Erlewine 2012: (27), (29) & (31))

He argues that the optional occurrence of *shì* in disjunctive questions, as in (28a-c), being pre-VP/TP, is also a focus marker. He proposes that *shì* gives its complement ‘a non-trivial focus semantics value’, i.e., having a non-singleton set of focus alternatives.

28) a. 你(是)想[掃地]還是[洗碗](呢)?

nǐ (shi) xiǎng [sào dì] háishì [xiǎn wǎn] (ne)?

you SHI want sweep.floor or wash.dishes Q

‘Do you want to sweep the floor or wash the dishes?’

b. (是)貓還是[狗]偷了魚(呢)?

(shì) [māo] háishì [gǒu] tōuzōu le yú (ne)?

SHI cat or dog steal.away ASP fish Q

‘Is it the cat or the dog that stole the fish?’

c. (是)你弄錯了[電腦自己當機了](呢)?

(shì) [nǐ nòngcuò le] háishì [diànnǎo  zìjǐ dāngjī le] (ne)?

SHI you make.mistake ASP or computer self crash ASP Q

‘Is it that you made a mistake or that the computer crashed by itself?’

(Erlewine 2012: (28), (30) & (32))
What Erlewine (2012) does not mention is that *shi* does not just occur in pre-VP/TP position; it also occurs in pre-adjective position. And the occurrence of *shi* before an adjective is used differently from the type of *assertive* use exemplified in Erlewine’s (2012) pre-VP/TP examples. I argue that the pre-adjective *shi* is usually used to convey *agreement*. In (29a), the questioner asks a *confirmation ma* question, and the addressee confirms it by *agreeing* with the questioner’s conveyed insufficient belief, i.e., that *the address thinks Mary is beautiful*. In (29b), *shi* qualifies the adjective 溫暖 *wēnnuăn* (*warm*), presenting the speaker as agreeing the interlocutor’s comment. Now, if *shi* is what Erlewine (2012) proposes, i.e. a focus marker assigning its complement a non-singleton set of alternatives, what would be the alternatives to an adjective complement? Normally, a set of alternatives for 漂亮 *piàoliăng* (*beautiful*) in (29a) is a set of individuals other than *Mary* that is *beautiful*, but what does it gain?

29) a. Q: 你覺得瑪麗漂亮嗎?

你 think 瑪麗 beautiful MA

‘Do you think Mary is beautiful?’

A: 她是 [漂亮]. 但是不太友善。

她 SHI beautiful but NEG too friendly

‘She is indeed beautiful, but she is not too friendly.’

b. A: 今年冬天 [很溫暖].

今年冬天是 [很溫暖].

‘This winter is warm.

B: 今年冬天是 [很溫暖].

‘This winter is indeed warm.’
Although the focus semantics proposal may serve as an explanation as to why the háishi-phrases, such as the ones in (28a-c), have non-singleton semantic value, it is not useful beyond that. The biggest problem of all, Erlewine’s (2012) analyses assume the presence of shì, covert or overt, in all háishi sentences so that the desired focus semantic value can be assigned by it, but it is another misunderstanding. The presence and the absence of shì in háishi questions present speakers in different ways. I argue that a disjunctive question qualified by shì present speakers as presupposing that at least one of the disjuncts is true\(^{20}\). Without it, speakers simply present themselves as not knowing which disjunct is true. Take (28c) for example. Suppose your computer stopped working after your roommate used it, and you, presuming that it is either that your roommate damaged it or that the computer stopped working by itself, want to know which of the two reasons is the truth. In this case, shì must be added to the háishi question. However, if you do not want to sound too presumptuous and you want to show that you do not exclude other possibilities, you should not ask the háishi question qualified by shì. In other words, shì may be syntactically ‘optional’, but there is a semantic difference between the presence and the absence of it. Unfortunately, Erlewine’s (2012) account completely overlooks this important difference.

2.2.4 MY ACCOUNT

2.2.4.1 Defining Disjunctive Questions

Logical disjunctive particles (∨/⊻) and natural language disjunctives do not always share the same sense. In fact, as Jennings (1995) points out, “a sentence has no logical form independent of a specification of a formal language of representation” (p.53), and often times, the correct propositional formula representing an or-utterance is actually a conjunction, not a disjunction. In the restaurative example given by Jennings (1995), what is told to a diner, You may have tea or coffee, is a representative example of the case. The waiter, though uttering an or-sentence, actually conveys two conjoined facts, that is, the diner can have tea ‘and’ the diner can have coffee. And without contradiction, the waiter can clarify that having both tea and coffee is not permitted: You can have coffee. You can

\(^{20}\) Shì, when qualifies elements in a statement or the statement itself, presents speakers as agreeing on the qualified element. Thus, when it qualifies a question, it is not surprising that it conveys that the speakers presuppose a true answer.
have tea. But I am afraid that you may not have both. Jennings (1995) argues “were it in fact a disjunction, no permission would have been conveyed, because the addressee would not have been told what he was allowed to do” (p.65).

A lot of things need to be taken into consideration when determining if an utterance is disjunctive or conjunctive. For example, we need to see if the ‘environment’ of the list21 is ‘distributive’, ‘weakly distributive’, or ‘undistributive.’ For example, as Jennings (1995) exemplifies, assuming co-referential occurrences of Jennifer, a ‘weakly distributive’ sentence such as Jennifer is at least as light as Jennifer and Peter would entail the disjunction: Jennifer is at least as light as Jennifer or Jennifer is at least as light as Peter. We also need to see if the truth of one disjunct precludes the truth of the other. For example, an utterance such as John’s best friend is a boy or a girl is undoubtedly a disjunction, because being a boy precludes the possibility of being a girl. And we also need to consider what the utterances are purposed for. For example, conveying facts and giving permissions result in different readings. And thus a parent telling his child what he could have, You can have one candy or you can go out to ride your bike, is naturally taken to have a disjunctive reading.

There are many other things to consider when it comes to disjunctive sentences’ logical presentation, but they are beyond the scope of this paper. The focus of Jennings’ (1995) book is about the kinship of the ‘or’ in English and logical disjunction $\lor$. Disjunctive questions are left out from his discussions because they are not well-formed formulae (WFF) in the sense that they do not bear truth. Nonetheless, Jennings’ (1995) analyses pave the way to our quest to the understanding of disjunctive questions. I argue that, given the nature of disjunctive questions, i.e., being a speech-act that presents speakers as not knowing which of the disjunct is true, disjunctive questions are invariably disjunctive, as opposed to the disjunctive statements22 which may or may not be logical

21 According to Jennings (1995), it is the “rest of the sentence where the list occurs” (p.12), and the ‘list’ refers to the or-list or the and-list.

22 To avoid confusion, I use the term ‘disjunctive statements’ to refer to the ‘disjunctive sentences’ in Jennings’ sense (1995). In my terminology, sentences can be used either to ask questions or non-questions, e.g., assertions, requests, demands, etc. But the ‘disjunctive sentences’ Jennings (1995) refers to are non-questions, or WWF. Thus, what I call disjunctive statements are semantically complete.
disjunction. I propose two distinguishing characteristics of disjunctive questions in speech-acts. First, disjunctive questions disjoin options, whereas disjunctive statements disjoin alternatives. Uttering disjoined options presents speakers as not knowing which option is the true in the ‘environment’, i.e., the sentence where the disjunctive phrase occurs; uttering disjoined alternatives presents speakers as asserting a list. Second, disjunctive questions, being a type of open questions, are formally incomplete, whereas disjunctive sentences are not (and cannot be) marked incomplete.

Languages may vary in how the formal incompleteness is marked in disjunctive questions, and English and Mandarin Chinese adopt different ways to do so. I propose that the inversion in English structurally marks the disjunction of options, while the choice of the marked disjunctive háishi (‘or’) instead of the unmarked huòzhě (‘or’) marks the disjunction of options in Mandarin Chinese. Both, the inversion and the choice of the marked disjunctive, signal speakers’ ignorance concerning the true disjunct.

Consider the following examples in English. The sentence (30a) is a structurally incomplete sentence because of the inversion. It signals that the disjunctive phrase denotes options. Uttering it thus presents its speaker as not knowing if it is the disjunct male or the disjunct female that will make John’s doctor is _____ true. The structurally complete (30b), on the other hand, conveys that its disjunction is a list of alternatives. And because being male excludes the possibility of being female and vice versa, (30b) is a logical disjunction. We can view (30b) as conveying a pair of mutually exclusive possibilities for John’s doctor is _____.

30) a. Is John’s doctor a male or a female?

23 It should be noted that alternatives can be logical disjunction or conjunction. For example, in the restaurative example, tea or coffee are alternatives in the sense that they are offered to the diner as choices, and choices can be a list of conjoined facts. On the other hand, in the example of (30b), male or female are alternatives in the sense that they are a pair of possibilities, and because these possibilities are mutually exclusive, they must be disjoined possibilities.

24 Remember that, in Fiengo (2007), the inversion in English signals the missing glue between the subject and the predicate in yes-no questions, and speakers of yes-no questions present themselves as not knowing if the subject can be saturated in the predicate. Here I assume the same for disjunctive questions, and I further argue that the missing glue, which causes the unsaturation, is a reflection of the disjunction of options.
b. John’s doctor is a male or a female.

The Mandarin Chinese version of (30a & b), as shown below, has no structural difference, but they employ different disjunctives. In (31a), because the háiši-disjunction has the sense of disjoined options, using it presents the speaker as not knowing which of the disjunct, namely, nánshēng ('male') or nǚshēng ('female'), makes yuēhàn de yīshēng shì _____ ('John’s doctor is _____') true. Thus, the háiši-question is a disjunctive question. In (31b), the disjuncts disjoined by huòzhě ('or') have the sense of alternatives. Uttering (31b) presents its speaker as asserting the possible genders of John’s doctor.

31) a. 約翰的醫生是男生還是女生?
    
    yuēhàn de yīshēng shì nánshēng háiši nǚshēng.
    
    John  DE doctor SHI  male  or  female
    
    ‘Is John’s doctor male or female?’
    
    b. 約翰的醫生是男生或者女生。
    
    yuēhàn de yīshēng shì nánshēng huòzhě nǚshēng.
    
    John  DE doctor SHI  male  or  female
    
    ‘John’s doctor is male or female.’

To conclude, utterances of disjunction do not necessarily convey logical disjunctions, but disjunctive questions do. Sentences that are formally marked to convey options are logically disjunctive, which, when uttered, present speakers as not knowing which option is true. English formally marks options via incomplete structure, whereas Mandarin Chinese does so via incomplete semantics.

2.2.4.2 Neither Inclusive nor Exclusive

Asking a disjunctive question is to perform a speech-act that conveys your ignorance concerning the true disjunct. It may give out an illusion that the disjunctive in disjunctive questions is logically ‘exclusive’, but it is incorrect. Natural language does not have a set logical interpretation for disjunctives. For disjunctive questions, it is their use that leads us to a certain interpretation.
Suppose you are held up at customs entering the United States because of some suspicious material you bring back from a trip. To ensure that the interrogation is not lost in translation, the customs officer asks you (32a), so that he can bring in an interpreter, if necessary. Assuming that his intention is well understood by you, even though you grew up bilingual, you are more likely to answer *English is fine* than *I speak both English and Spanish*. Your response is accounted for by Grice’s maxim of quantity rather than the *whole* truth. One may argue that the single-disjunct response can still be explained by formalizing the disjunctive *or* as ‘exclusive’, so let us suppose this is the case for a moment. And imagine you are at a job interview for, say, a position as a United Nations translator. It requires fluency in at least one of the following languages: English, Spanish, or Mandarin Chinese. Given our common understanding that a position like this does not require you to speak ‘only one’ of the three languages, and in fact, being able to command more than one language not only is ideal for this position but also increases your job prospects, when asked a three-disjunct question such as (32b), you would be more inclined to give a multi-disjunct answer if you are bilingual or trilingual, e.g., *I speak both English and Mandarin*, or *I speak all three of them*. Asking (32b) only conveys the disjoinment of the three basic language requirements rather than the ‘exclusiveness’ of one of these languages.

32)  a. Do you speak English or Spanish?

b. Do you speak English, Spanish or Mandarin Chinese?

To conclude, the disjunctive in *disjunctive* questions is neither ‘inclusive’ nor ‘exclusive’. It simply serves to disjoin disjuncts that are of the sense of *options*. Being analyzed in speech-acts, it should hold true for any language. Note that this also explains why the ‘focus semantic system’ in the previously reviewed Beck & Kim (2006) and Erlewine (2012) is inadequate. Their proposals for both English and Mandarin Chinese compute the ‘focus value’ based on the disjunction’s ‘alternatives’, which is ultimately purposed to account for what disjunctions are, but the formalization of disjunctions gives very little insight into what natural language disjunctions really are.
2.2.4.3  Disjunctive Questions and Island Effects

Huang (1991) argues that háishi-questions are not subject to island conditions, while Erlewine (2012) argues they are. They both present examples to support their points but their contrasting findings are not quite contrasting after all if one realizes that their findings come from analyses of different syntactic positions. Huang’s (1991) argument is based on his observation that the extraction from the subject island is permitted for háishi-questions. Erlewine’s (2012) counterargument is that the extraction from the embedded clause is sometimes not permitted for háishi-questions. But there is an important difference between the subject island and the embedded clause. In the subject position, if the formally incomplete clause, such as an A-not-A clause shown in (33a), fails to obtain wide-scope interpretation, it cannot be interpreted. On the other hand, if the formally incomplete clause cannot obtain wide-scope interpretation in the embedded clause, as shown in (33b), it could still have indirect question reading.

33) a. “[他去還是不去]很好。

[tā qù bù qù] hěn hǎo

he go-not-go very good

Intended: “It is good that is he going?’

b. 約翰想知道[他去不去]。

yuēhàn xiāng.zhīdào [tā qù bù qù]

John wonder he go-not-go

i. Indented: “Does John wonder is he going?’

ii. ‘John wonders if he is going.’

The question is what makes such a difference. Remember that formally incomplete sentences always present speakers as ignorant. Because of their structural or semantic lacking, they convey no proposition and have no use other than asking open questions. However, when a formally incomplete clause is properly dominated by a matrix clause (or matrix predicate, to be exact), the sentence is not deemed incomplete and has downstairs reading, i.e.,
indirect question. A formally *incomplete* clause in the subject position is free of domination. Therefore, it either has an upstairs reading or fails to have any reading at all.

In addition to the occurring position of the *háishi*-questions, Huang (1991) and the revised account in Huang et al. (2009) for the subject island also miss another important point. Essentially, they argue that *háishi*-questions can escape subject islands because they are ‘constituent questions’ and the extraction is permitted under ECP, and it is further argued that the contrasting adjunct questions such as *A-not-A* questions, which, according to them, are on a par with *why*-questions, cannot escape subject islands because the extraction is not permitted by ECP. Hence the following contrast:

34) a. [他去還是不去]比較好?
   
   [tā qù háishi bú qù] bǐjiào hǎo?
   
   he go or not go more better
   
   ‘Is it better that he go or that he doesn’t go?’
   
   Adapted from (Huang et al. 2009: (53))

b. ¹[(他去不去)比較好?
   
   [tā qù bú qù] bǐjiào hǎo?
   
   he go-not-go more better
   
   Intended: ¹Is it better that is he going?’

However, had the account been correct, we should be able to predict that (35a) is good while (35b) is bad because ECP permits argument extraction while disallows adjunct extraction, but it is not the case. As shown below, both sentences are not good, with extraction or without. Examples like (35a & b) demonstrate that the *movement* account in Huang (1991) and Huang et al. (2009) is inadequate.

35) a. ¹[(他去還是不去)]很好?
   
   [tā qù háishi bú qù] hěn hǎo?.
   
   he go or not go very good
   
   i. Intended: ¹Is it good that he goes or that he doesn’t go?’
ii. Intended: “It is good that is he going or is he not going?”

b. “[他去不去]很好? /。

[tā qù bù qù] hěn háo?/
he go-not-go very good

i. Intended: “Is it good that is he going?”

ii. Intended: “It is good that is he going?”

Given that they all occur in the subject position, now the question is what allows the háishi-question in (34a) to have wide-scope reading but not the A-not-A question in (34b) and what makes both questions fail to be interpreted in (35a & b). Háishi-questions and A-not-A questions are two different questions; they are formally incomplete in different ways. Háishi-questions are incomplete because they convey disjunction of options, A-not-A questions, as I argue in the next section, are incomplete because they convey the lack of glue between the subject and its predicate. The former, hence, present speakers as not knowing the true disjunct since all the disjuncts have the sense of being options, and the latter present speakers as not knowing if the positive statement is true since, without the glue, it is not clear if the predicate can be applied to the subject. I argue (34a & b) and (35a & b) can be explained simply by whether the predicate can be sensibly applied to the subject. The predicate _____ bijiào hǎo (‘_____ is better’) lexically presupposes competitors, which is exactly what the háishi-clause in (34a) denotes, i.e., disjoined options: tā qù (‘he goes’) or tā bù qù (‘he does not go’). Thus, the application of the predicate to the subject presents speakers as not knowing which of the disjoined option is better, i.e., Is it better that he goes or that he does not go? But the same predicate cannot be meaningfully applied to the A-not-A clause in (34b) because, to put it in a simpler way, we cannot ask if John’s going is better if we do not know if John is going. The failure to obtain interpretation can be explained in a similar fashion for (35a & b). The predicate _____ hěn hǎo (‘_____ is good’) presupposes a definitive subject; to say something is good, one must know what is good. In other words, this type of predicate cannot be applied to formally incomplete subjects. This is why both the háishi-question in (35a) the A-not-A question in (35b) fail to obtain sensible reading.
To conclude, the island effects observed by Huang (1991), Huang et al. (2009) and Erlewine (2012) are not really island effects. The inadequacy of their accounts suggest that their observations are something of a different nature, to which I demonstrate with my own account that take into consideration of (i) the positions where formally *incomplete* clauses occur and (ii) the sensible application of the predicate to the subject.

2.3  **A-NOT-A QUESTIONS**

2.3.1 **WHAT ARE A-NOT-A QUESTIONS?**

The term A-not-A questions in Mandarin Chinese refers to a class of questions whose structure contains a segment in which a positive element is followed immediately by a negative one. The label ‘A’ is a conventional label for words that can be used in this segment and is limited to verbs, adjectives, prepositions, and modal verbs, as shown in (1-4), respectively.

1)  你喝不喝茶?  (V-not-V)  
nǐ  hē bù hē  chá?  
you drink-not-drink tea  
'Do you drink tea?'

2)  他高不高?  (Adjective-not-Adjective)  
tā  gāo bù gāo?  
he tall-not-tall  
'Is he tall?'

3)  你妈妈在不在家?  (Preposition-not-Preposition)  
nǐ  māma  zài bù zài  jiā?  
your mother at-not-at home  
'Is your mother home?'

4)  约翰要不要跟我們一起去義大利?  (Modal-not-Modal)  
yuēhàn  yào bù yào  gēn wǒmen  yì qǐ  qù yìdàlì  
John will-not-will with us together go Italy
'Will John come with us to Italy?'

A-not-A questions are asked when a speaker does not know if the positive statement is true. For example, asking (1) presents a speaker as not knowing if you (the addressee) drink tea, asking (2) presents a speaker as not knowing if he is tall, asking (3) presents a speaker as not knowing if your mother is at home, and asking (4) presents a speaker as not knowing if John will want to go to Italy with us. Hence, A-not-A questions are essentially yes-no questions, just like the inverted yes-no questions (as shown in the translation above) in English.

Being a type of open (yes-no) questions, A-not-A questions should in no way be treated on par with ma questions, which, as I have argued in Section 2.1, are confirmation questions. However, they have been widely assumed to be semantically equivalent with ma questions and are interchangeable in use with them (see Ernst 1994, Law 2001, among others). This prevailing ‘assumption’ is possibly based on the myth that questions that have the same answers are semantically equivalent and since A-not-A questions and ma questions can be answered in the same way⁵, they are the same question-type. Furthermore, since they are the same question-type, they are interchangeable. The core problem of this myth is that different questions can be answered in the same way. In English, a response of yes/no can be given to both a yes-no question Did you bring an umbrella? and a confirmation question You brought my umbrella? while these two questions convey completely different meanings. One who asks the former expresses that he does not know if the addressee has brought his umbrella, but one who asks the latter expresses that he is not certain that the addressee has brought his umbrella. If these two question-types are treated with semantic equivalence, then one of the above two speech-acts must be lost. The same holds true in Mandarin Chinese. If we consider A-not-A questions and ma questions as the same question-type because they can have the same answer, then we would not be able to tell yes-no questions from confirmation questions.

¹⁵ Though being yes-no questions, A-not-A questions in Mandarin Chinese are not answered with yes or no. Instead, a positive or negative ‘A’ is given in the answer. For example, (1) can be answered with 喝 hé (‘drink’) or 不喝 bù hé (‘not drink’). A lengthier but not uncommon alternative can be a complete assertion 我喝/不喝茶。wǒ hé/bù hé chá. (‘I drink/don’t drink tea’). Mandarin Chinese ma questions can also be confirmed or denied with a positive or negative predicate, just like A-not-A questions.
The difference between A-not-A questions and ma questions does not go unnoticed. Li & Thompson (1982), though consider them as the same type of questions, note that A-not-A questions sound ‘stronger’ than ma questions, but no explanation is offered. In fact, no good explanation can be offered if they are taken as the same type of questions and of semantic equivalence. Their ‘sounding stronger or weaker’\(^{26}\) can only be explained if they are treated as different question-types and are used to present speakers in different ways. Suppose your girlfriend, who always dates good-looking guys, told you that she just got a new boyfriend. If you want to find out if her new boyfriend is as handsome as her exes without accidentally offending her, you had better ask a confirmation ma question, such as (5a) – or in Li & Thompson’s (1982) term, the ‘weaker’ ma questions – because an open question, such as (5a), would present you as having no idea that only good-looking people worth her time\(^{27}\). And this explanation cannot be given if (5a) and (5b) are deemed the same questions.

A-not-A questions and ma questions are simply two different question-types.

5) a. 你的男朋友帅吗？

nǐ de nán péngyǒu shuài ma?

you DE male friend handsome MA

‘Your boyfriend handsome?’

b. 你的男朋友不帅？

nǐ de nán péngyǒu shuài bù shuài?

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\(^{26}\) I think it is an unfortunate description. Questions-types themselves are not categorically ‘stronger’ or ‘weaker’; it is how they are used that makes the questions sound that way. For example, asking an open question to a defendant sounds less assertive – or ‘weaker’ – than asking a confirmation question in court but it is not because open questions are ‘weaker’, but because open questions do not present the prosecutor as having a pre-existing belief that the defendant has done something wrong. But asking a student if he solved the math problems he just turned in (as opposed to having someone else do them for him) with an open question sounds more distrustful – or ‘stronger’ – than asking a confirmations, e.g., Did you do them yourself? versus You did them yourself? And, again, that is because an open question presents the teacher as having no pre-existing belief, and in this case, the belief that the student who did his own homework.

\(^{27}\) One may argue that the girl may be offended by either question anyway, but it is off the point. The point here is that in this particular case, an A-not-A question sounds worse than a ma question, because it presents the speaker as casting a ‘stronger’ doubt about the girl’s good-looking-guy choosing ability.
you DE male friend handsome-not-handsome

‘Is your boyfriend handsome?”

In the following, I first review previous endeavors in accounting for A-not-A questions. I argue against the general assumption that what permits the use of the A-not-A sentence-type as questions is built in the structure, whether it is the postulation of Q-feature or Q-operator. Following Fiengo (2007), I argue that they are available for this specific type of speech-act, i.e., presenting speakers as not knowing whether the syntactic subject can be saturated in the predicate to produce a true proposition, because yes-no questions are structurally incomplete. The proposal of structural incompleteness rather than structural annex, as I will argue in the later segments of this section, not only provides a simpler account but also explains a wider range of uses, which would require more syntax- or semantics-related postulation otherwise.

2.3.2 PREVIOUS ACCOUNTS

2.3.2.1 HUANG (1991) & HUANG ET AL. (2009): THE MODULAR SYNTACTIC ACCOUNT

Huang (1991), agreeing with Mei (1978), views A-not-A questions as historically related to disjunctive questions but considers a synchronic analysis which treats A-not-A questions on a par with disjunctive questions as “natural and highly plausible... but not optimal” (p. 307). In the modular approach he proposed in Huang (1988b, 1991), he proposes that the disjunctive háishi (‘or’) question and the bi-clausal questions, i.e., questions whose disjuncts are not disjoined by the disjunctive háishi but rather simply juxtaposed, should each have its own syntactic treatment. He views háishi-questions as disjunctive questions, and the juxtaposed bi-clausal questions as A-not-A questions. For example, as shown below, (6a), which is different from (6b) only by having a disjunctive háishi in the structure, is considered as a disjunctive question, while (6b), whose disjunctive is absent, is an A-not-A question in his account.

6) a. 張三喜歡這本書還是不喜歡這本書?
zhāngsān xīhuān zhè běn shū háishì bù xīhuān zhè běn shū?
Zhangsan like this CL book or not like this CL book
'Does Zhangsan like this book or not?

(Huang’s translation: ‘Does Zhangsan like this book or doesn’t he like this book?’)

b. 張三喜歡這本書不喜歡這本書?

ZHĀNGSĀN XIHUÀN Zhè BĒN SHU BÚ XIHUÀN Zhè BĒN SHU?

Zhangsan like this CL book not like this CL book

‘Does Zhangsan like this book?’

(Huang’s translation: ‘Does Zhangsan like this book or doesn’t he like this book?’)

(Huang 1991: (1a & b))

Despite his efforts, in essence, Huang’s (1988b, 1991) definition of A-not-A questions, which is purely based on their overt structure, can be summarized as such: A-not-A questions are questions whose two disjuncts are positive and negative of the same element, juxtaposed without a disjunctive. His problem is obvious. To him, an A-not-A question is essentially a disjunctive question without its form, and his attitude reflects on how he translates sentences such as (6a & b) – they both have the same disjunctive-question translations. But it is wrong. A speaker who asks (6a) when he does not know which of the two disjuncts: Zhangsan likes this book and Zhangsan doesn’t like this book is true, but a speaker who asks (6b) when he does not know if Zhangsan likes this book is true. A-not-A questions are a different question-type from disjunctive questions, and it is not because they lack a disjunctive in form, but because they are simply different questions to begin with. An ‘optimal synchronic analysis’, as what Huang (1988b, 1991) pursues, should not have the need to compare these two completely different question-types by their forms.


\[28\] Huang (1991) calls them ‘true’ so as to distinguish them from disjunctive questions. The same consideration is given in Huang et al. (2009) as well.
to account for their compositional differences. Specifically, he argues that the [A-not-AB] type is derived through a phonological reduplication rule, whereas the [AB-not-A] type is obtained through anaphoric ellipsis.

**The [A-not-AB] Type**

The first type of A-not-A question is what Huang (1991) calls the ‘[A-not-AB] type’. He does not specify what ‘A’ and ‘B’ are (in either Huang (1991) or Huang et al. (2009)), but from his analyses, I assume that the ‘A’ stands for (i) the first character of a two-character verb, adjective or modal verb, or (ii) a (usually monosyllabic) transitive verb that takes an object, or (iii) a preposition; ‘B’, correspondingly, stands for the second character of a two-character verb/adjective/modal verb, the object of the transitive verb, or the preposition and its following element. An ‘[A-not-AB] type’ of A-not-A questions always has a null ‘B’ in the positive segment. The following sentences are examples of the [A-not-AB] type: (7a-c) are examples where the second character of a two-character verb/adjective/modal verb is null in the positive segment; in (7d), the object of the positive segment is null; in (7e), the element following the preposition in the positive segment is null. The null segment is noted in parentheses.

7)  a. 你喜不喜歡喝茶?
    nǐ  xǐ(huān) bù xǐhuān hē  chá?
    you  like-not-like  drink tea
    ‘Do you like drinking tea?’

    b. 你快(樂)不快樂?
    nǐ  kuài(lè)  bù  kuàilè?
    you  happy-not-happy
    ‘Are you happy?’

    c. 你想(要)不想要去看電影?
    nǐ  xiǎng(yào)  bù  xiǎngyào  qù  kàn  diànyǐng?
    you  want-not-want  go  see  movie
    ‘Do you want to see a movie?’

    d. 你喝(茶)不喝茶?
    nǐ  hē(chá)  bù  hē  chá?
    you  drink-not-drink  tea
    ‘Do you drink tea?’
nǐ hē (chá) bù hē chá?

you drink-not-drink tea

‘Do you drink tea?’

e. 你從(這裡出發)不從這裡出發?

nǐ cóng bù cóng zhèlǐ chūfā?

you from (zhèlǐ chūfā) -not-from here depart

‘Do you leave from here?’

Huang (1991) proposes that the [A-not-AB] type of A-not-A questions originates in the D-Structure with a feature [+Q] postulated under INFL\(^2\). A more updated version of his 1991 configuration can be found in Huang et al. (2009), where the interrogative functional head Q is “located in the same position where one would find the negation head of a negative sentence” (p.253), as shown in (8). In Huang (1991), the argument is that [+Q] is realized via a phonological reduplication rule\(^29\), which “copies a sequence immediately following INFL and inserts the morpheme 不 bu (‘not’) between the original and its copy” (p.316). Two decades later in Huang et al. (2009), the reduplication rule is restated as a morphological one, which is drastically different.

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\(^{29}\) Huang (1991) notes in his footnote (6) that he assumes the reduplication rule to be a phonological one; that is, the sequence being reduplicated is a phonological unit. He does not object to the possibility that the reduplication rule could be a lexical one, but he states that it may result a sentence such as the one in the following be analyzed as the [AB-not-A] type instead, since the lexical reduplication rule cannot duplicate the whole VP.

你喜歡這本書不喜歡這本書?

nǐ [xǐhuān zhè běn shū] [bù xǐhuān zhè běn shū]?

you [ like this CL book] [not like this CL book]

‘Do you like this book?’
The original phonological reduplication rule (Huang 1991) involves two important steps: the copying of the first segment of the constituent in question (see the highlighted in (9)) and the insertion of negation (see the bold in (8)). The order of these two steps is not specified in the original text.

9) \([+[Q]\ldots AB\ldots] \Rightarrow [\ldots \overline{A} + \text{NEG} + AB\ldots]\)

This approach incurs criticisms concerning morphological restrictions. As McCawley (1994) points out, predicate phrases whose first character denotes negation cannot occur after the negation, and that leads to the ungrammaticality of the realized A-not-A questions. I select a couple of examples from McCawley (1994) to demonstrate this issue, as shown in the following:

10) a. *那個問題未決不/沒未決？

    nà ge wèntí wèijué bù/méi wèijué?

    that CL problem undecided-not-undecide

    ‘Is that problem undecided?’

b. *他無權不/沒無權干預？

    tā wúquán bù/méi wúquán gānyù?

    he unauthorize-not-unauthorize interfere

    Intended: ‘Does he not have the authority to interfere?’
Another issue, which I have observed, is that there are two types of negation in Mandarin Chinese, namely, 不 (‘not’) and 没 (‘not’). The latter is used to negate the existence of experience or events, whereas the former is used in all the other scenarios. A simple insertion application would be insufficient to account for this difference. For example, questions such as (11a & b) are two different A-not-A question-tokens: one asks if she is coming, and the other asks if she has arrived; their semantic differences originate in the choice of negation, i.e., 不 for (11a) and 没 for (11b). Huang’s (1991) reduplication account may be able to explain the structure, but it does not explain their aspectual differences.

11) a. 她來不來?
   tā lái bù lái?
   she come-not-come
   ‘Is she coming?’

b. 她來沒來?
   tā lái méi lái?
   she come-not-come
   ‘Has she arrived (yet)?’

Huang et al. (2009) revises the reduplication approach to be a morphological one. First, the interrogative Q reduplicates the first segment of the constituent in question, just like the original one, but the second step is not merely to insert a negation, but to turn “the second of the identical parts into its appropriate negative form” and “what form the negative part will take depends on the aspectual property of the verbal element” (p.253). The newly-revised approach is intended to repaire the heavily faulted reduplication rule. By revising the reduplication rule to be morphological, it is hoped that the morphological constraints such as those pointed out by McCawley (1994), particularly words that cannot be negated in Chinese due to their morphological composition, e.g., words prefixed with a negative word, can be predicated. In addition, it hopes to reduce the choice of negations 不 (‘not’) and 没 (‘not’) into rules of morphology. For example, as Huang et al. (2009) states, accomplishment
verbs, i.e., verbs that are morphologically composed of an action segment and a result segment, such as 看懂 kàndōng (‘read.understand’), must take the aspectual 沒 méi (‘not’) instead of 不 bù (‘not’). But the revised account still falls short in explaining the use of A-not-A constructions where the negation of A is morphologically considered ungrammatical.

Consider the following examples. What are shown in (12a-c) are words that simply cannot be negated, whether they are words prefixed with a negative word, such as (12a & b) or words that simply do not have a negative form, as in (12c). They can, nonetheless, be used to ask A-not-A questions, as shown in (12a’-c’). I do not deny the possibility that some A-not-A questions cannot be formed due to morphological reasons, but I do question that syntax and morphology are the reason A-not-A questions can be asked.

12) a. *不無情
   
   bù wúqíng
   
   NEG non.empathic
   
   Intended: ‘not without empathy’

   a’. 他無(情)不無情?
   
   tā wú(qíng) bù wúqíng?
   
   he non(empathetic)-NEG-non.empathetic
   
   ‘Does he lack empathy?’

b. *不莫名其妙
   
   bù mòmíngqímiào
   
   NEG no.cause.origin.reason
   
   Intended: ‘not inexplicable’

   b’. 你說他莫名其妙不莫名其妙?
   
   nǐ shuō tā mòmíngqímiào bù mòmíngqímiào?
   
   you think he no.cause.origin.reason-NEG- no.cause.origin.reason
   
   ‘Do you think he is beyond reasoning?’
c. *不神經

bù shénjīng

NEG crazy

Intended: ‘not crazy’

c'. 你覺得他神經不神經?

nǐ juéde tā shénjīng bù shénjīng ?

you think he crazy-NEG-crazy

‘Do you think he is crazy?’

Furthermore, morphology alone cannot sufficiently explain the choice of negation types, especially when the word in question is morphologically unvarnished. For example, as in (13a & b), a verb such as 去 qù (‘go’) can be used to question whether the subject will go to a place or whether the subject has gone. For these verbs, the choice of negation cannot be simplified into morphological rules.

13) a. 他去不去?

tā qù bú qù ?

he go-NEGbù–go

‘Will he go?’

b. 他去沒去?

tā qù méi qù ?

he go-NEGméi–go

‘Did he go?’

The lack of negation in the D-Structure also results in other issues. McCawley (1994) argues that since it does not exist in the D-Structure where meanings are formed, it would make no material difference if, say, a word such as 也 (‘also’) or jiàngyóu (‘soy sauce’) is inserted instead of negation. However, according to Huang’s (1991) account, it must be assumed that the negation is interpreted in the later stage of the transformation. Assuming the negation is interpreted in the surface structure, an issue regarding the sequence of the reduplication remains: why
must the negative form be derived after the positive is reduplicated? Also, why must the interrogative Q be realized in a positive-negative sequence, i.e., [[A]-[not-A]], instead of a negative-positive sequence such as [[not-A]-A]]? While one may be able to explain these two questions in derivational terms, it should be noted that the sequence of a positive phrase and a negative phrase in questions actually presents speakers in different ways.

Consider the cases in both English and Mandarin Chinese disjunctive questions. When a positive disjunct precedes a negative disjunct, such as (14a) and (15a), speakers present themselves as not knowing if the addressee is going or not going. But when the negative disjunct precedes the positive disjunct, such as (14b) and (15b), even though speakers are taken as equally ignorant concerning the addressee’s choice, the preceding negative disjunct implies that the speaker senses that the addressee may not be going. In fact, they may even be used to accuse the addressee of having not already been gone.

14) a. Are you going, or not?
   b. Are you not going, or are you?

15) a. 你去還是不去?
       nǐ qù hái shì bù qù ?
       you go or not go
       ‘Are you going or not?’
   b. 你不去還是去?
       nǐ bù qù hái shì qù ?
       you not go or go
       ‘Are you not going or are you?’

Judging from the effect of a negative form preceding a positive form in disjunctive questions, the possibility that the positive form preceding a negative form in questions is the null hypothesis cannot be excluded, and that it can be more intuitively explained as a result of human psychology than an underlying grammatical rule. And based on the historical link between A-not-A questions and disjunctive questions, it is likely that the sequence of [A]
followed by [not-A] is a grammaticalized speech-act, which I will argue further in the next few sections. The question I am raising at this point is: do we need grammar to tell us how A-not-A questions are formed?

Finally, it is important to note that Huang (1991) treats the [A-not-AB] type of A-not-A questions syntactically on a par with wh-questions, citing evidence from his dissertation (Huang 1982b) that both A-not-A questions and Mandarin Chinese why-questions, i.e., questions containing 為什麼 wèi shénme (‘why’), exhibits syntactic restrictions associated with island properties. It is also noted by Huang (1991) in the footnote 30 that he assumes the A-not-A phrase to be comparable to the English whether with a difference in the position of [+Q], i.e., Mandarin Chinese in INFL and English in COMP, and that INFL, unlike COMP, is an A-position. In Huang et al. (2009), the feature that motivates the transformation is assumed to be the interrogative head Q instead, but the basic idea has not been changed.

THE [AB-NOT-A] TYPE

The second type of A-not-A question, according to Huang (1991), is the [AB-not-A] type. This type of A-not-A sentence is characterized as having a null object in the [not-A] segment of the [A-not-A] constituent. As shown below, the object 茶 chá (‘tea’) is omitted in the negative segment of the [A-not-A] constituent.

16) 你喜歡喝茶不喜歡?

nǐ xǐhuān hē chá bù xǐhuān ____?

you like drink tea–not–like

‘Do you like to drink tea?’

Huang (1991) argues that the [AB-not-A] type originates as sentences “with juxtaposed VPs not connected by háishi” and that this type of sentence “may be interpreted as an alternative question” (p.318). Huang et al. (2009) elaborate on the originating sentence; they assume it to be a base-generated coordinate structure “[[VP] [Not VP]] joined by a null háishi with appropriate formal features, e.g., [+Q] and [+A-not-A], the latter ensuring that the

choice must occur in the order $A > \text{Not-}A$ but not vice versa” (p.252). This type of sentence is exemplified in (17). In this modular account, the [AB-not-A] form is obtained through an anaphoric ellipsis, where the object of the second disjunct is deleted.

17) 你喜歡這本書不喜歡這本書？

nǐ xǐhuān zhè běn shū bù xǐhuān zhè běn shū?

you like this CL book not like this CL book

‘Do you like this book or not like this book?’

(Huang 1991: (40))

Because the [AB-not-A] form is obtained through anaphoric ellipsis, Ross’ (1967) Directionality Constraint, which requires applications of forward deletion to identical occurrences on the left branch and backward deletion on the right branch, does not apply to it. Therefore, Huang (1991) argues that the [AB-not-A] form, such as one in (18a), is not subject to violation of Directionality Constraint; nor is the [A-not-AB] form, such as one in (18b), because it is derived through the reduplication rule and no deletion is involved.

18) a. 你喝茶不喝__?

nǐ hé chá bù hé__?

you drink tea not drink__

‘Do you drink tea?’

b. 你喝__不喝茶?

nǐ hé__ bù hé chá?

you drink__ not drink tea

‘Do you drink tea?’

The fundamental issue with the anaphoric ellipsis account is that Huang (1991) assumes that the [AB-not-A] form is a disjunctive question with deleted segments – in other words, the coordinate positive-negative VPs are disjuncts that go through syntactically orchestrated deletion process – but, as I have argued in the beginning of the review, the type of ignorance relayed through disjunctive questions is quite different from that of $A\text{-not-}A$
questions. A *disjunctive* question in D-structure cannot turn into an *A-not-A* question through any type of syntactic process, because these two *question*-types mean differently.

Both Huang’s (1988b, 1991) original account and the revised version in Huang et al. (2009) are flawed. They do not provide satisfactory explanation. Most important of all, they seem to misunderstand what *A-not-A* questions really are. They are *yes-no* questions, not *disjunctive* questions.

2.3.2.2 **GASDE (2004): THE MORPHO-SYNTACTIC ACCOUNT**


Two assumptions put Gasde’s (2004) account at a different starting point. First, he assumes that Chinese is an underlyingly SOV language\(^\text{31}\), a premise that guarantees a procedural disparateness from the mainstream syntactic accounts of modern Chinese. Second, the *[not-A]* segment of the *[A-not-A]* constituent is considered as a ‘semi-suffix which originates in the D-Structure. According to Gasde (2004), an *A-not-A* sentence such as (19) would have a D-Structure such as (19a) where a verb phrase headed by 饮 hé (‘drink’) is preceded by the direct object 茶 chá.

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\(^\text{31}\) Gasde (2004), citing Tai (1985), Liu (2000) and Kroch (2001), argues that there are three reasons that Chinese should be viewed as an underlying SOV language. First, Chinese is closely related to Tibeto-Burman languages, which is a SOV language. Second, Chinese exhibits apparent characteristics of headedness that exists only in SOV languages, such as the precedence of genitive, relative clause and adjective before nouns. Third, Chinese has sentence-final particles and is *wh*-in-situ, which are characteristics Baker (1970) hypothesizes to be SOV languages’. It is beyond the scope of this paper to assume Chinese to be either way; nonetheless, I should point out that, given the mix of headedness exhibiting in Chinese, it is not impossible that Chinese originates as a SOV language, but whether modern Chinese should be analyzed as a SOV language is a different story.
('tea'); the θ-role is assigned from the right to the left at this level. At the S-Structure, the verb moves to the head position of the higher V'-shell; the from-right-to-left syntactic licensing of the argument takes place at this stage.32

19) 你喝不喝茶?  

nǐ  hē bù hē  chá?

you drink-not-drink tea

‘Do you drink tea?’

a.  ...[v  chá  hébùhé]...

   tea  drink_{not,drink}

b.  ...[v  [v0  hébùhé]]  [v  chá  t3]...

   drink_{not,drink}  tea

Gasde (2004) argues that the same procedure can explain the [AB-not-A] type of A-not-A questions. As shown in (20), the head movement at S-Structure leaves the semi-suffix [not drink] behind at the lower V'-shell. Essentially, Gasde (2004) is proposing that the difference between the [A-not-AB] form and the [AB-not-A] form is whether or not the semi-suffix is brought along or left behind during the head movement at S-Structure.

20) 你喝茶不喝?

nǐ  hē chá bù hé?

you drink tea not drink

‘Do you drink tea?’

a.  ...[v  chá  hébùhé]...

   tea  drink_{not,drink}

b.  ...[v  [v0  hé]]  [v  chá  bùhé]...

   drink  tea

32 Gasde (2004) assumes that θ-role assignment and syntactic licensing, i.e., case, are two independent syntactic procedures. The former takes place at D-Structure and the latter the S-Structure in Chinese.
Unlike Huang (1991) who argues that the Q-feature triggers the reduplication process of the verb, Gasde (2004:302), assuming the [A-not-A] constituent to be ‘a full morphological word’, argues that the Q-feature is born with the Q-feature at the D-Structure.

Despite differences in how A-not-A questions are structurally obtained, both Huang (1991) and Gasde (2004) have similar ideas about how A-not-A questions obtain their interrogative readings, i.e., operator raising at LF, with differences only in respect to the destination of the LF movement. For Huang (1991), the interrogative reading is obtained via LF movement to COMP; for Gasde (2004), it is to the discourse function projection F(orce)\(^2\), a discourse function category where the sentential force of A-not-A questions is presumably interpreted. Along the lines of feature movement, Gasde (2004) contends that the [+Q] carried by the morphological word A-not-A is attracted to the weak Q-feature at F\(^2\) at LF, resulting in [+Q] sister-joins the weak Q-feature. This procedure, Gasde (2004) argues, “is that the [+Q] feature turns the predicate represented by V’ into a function” (p.397), and that is how A-not-A questions obtain their interrogative readings. According to Gasde (2004), his view can be verified by “the fact that indefinite objects with a specific reading cannot appear in A-not-A questions” (p.308). He exemplifies his point with the following two sentences. Note that Gasde (2004) does not provide a translation for these two sentences, which is unfortunate, because it would provide a useful sense in English of what these two sentences are used for. I have provided my own translations below. Also note that Gasde (2004) marks these two sentences as ungrammatical with an asterisk (*), which I do not agree.


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\(^{33}\) Note that Gasde (2004) considers F(orce)\(^1\) to be where yes-no questions are interpreted. Mandarin Chinese yes-no questions, to Gasde (2004), are ma questions; his assumption is based on the observation that ma questions can be answered with dui (‘correct’) or bù dui (‘incorrect’) – an idea that is obviously very differently from mine. Interestingly, though, is that Gasde (2004) postulates F\(^1\) at a position that is clausal external, as opposed to the clausal-internal F\(^2\). It is unclear what motivates this distinction, particularly because A-not-A questions do not co-occur with ma questions and there is no reason to postulate such scopal distinction.

\(^{34}\) Gasde (2004) notes in his footnote (31) that “Cf. Krifka (2001a: 2): question meanings are functions that, when applied to the meaning of the answer, yield a proposition” (p.321).

\(^{35}\) Gasde (2004:308) notes that this observation is made by Zhang (1999:296).
nièn mê bù mêi yī liàng xīn chē?
you not-buy buy one CL new car

‘Do you buy one new car?’

b. *你们买一辆新不买?
ièn mê yī liàng xīn chē bù mêi? [AB-not-A]
you buy one CL new car not buy

‘Do you buy one new car?’

(Gasde 2004: (21a & b))

Gasde (2004) states that, in a situation where a young man arrives on a scene where his friends appear to be purchasing a new and expensive car that is also present at the scene, “any use of an A-not-A question form will produce an ungrammatical sentence” (p.308). And his explanation for this ‘ungrammaticality’ is that, at LF, the indefinite 一輛新車 yī liàng xīn chē (‘one new car’) “by virtue of its presuppositional reading” undergoes the rule of LF quantifier raising (QR) across F2₀, where the question operator [+Q] has checked a correlating Q-feature, thereby turning the predicate represented by V’ into a function” (p.308). In other words, the ungrammaticality is due to the scopal issue.

However, it is unclear to me why the presupposed, indefinite noun should undergo QR at all. While Gasde (2004) seems to suggest that, for the indefinite noun yī liàng xīn chē (‘one new car’) to be presupposed, it must take an existential wide scope, but the use of A-not-A questions is equally bad even when the direct object is a definite noun, such as 那輛藍色的車 nà liàng lán sè de chē (‘that blue car’) or 這輛保時捷 zhè liàng bāoshíjié (‘this Porche’). The reason A-not-A questions cannot be appropriately asked in the described situation is obviously irrelevant to whether the direct object is presupposed or indefinite, not to mention whether it occupies a wider scope than the presumably A-not-A Force-expressing [+Q] at F2₀.

36 Gasde (2004) in footnote (34) elaborates what he means by ‘presuppositional reading’: “the existence of the car is presupposed” (p.321).
The unavailability of (21a & b) in the assumed situation is actually a case of misused question-type; it can be straightforwardly accounted for in terms of speech-acts without involving syntax or semantics. A-not-A questions, as I argue, are used to present speakers as not knowing if the subject can be saturated in the predicate, much like the inverted yes-no questions in English. The A-not-A questions in (21a & b) are asked when the speaker has no clue if the addressees are purchasing cars, but the assumed context clearly indicates that the addressees are there for car-purchase, even though whether they are actually going to make the purchase at that moment is unclear. If the speaker asks an A-not-A question, he would not be appropriately conveying his ignorance, because he knows his friends are there to buy cars. This is why A-not-A questions simply cannot be used in this situation.

Interestingly, Gasde (2004), assuming 是 shì being an assertive\(^{37}\) operator, seems to consider the use of it in A-not-A questions as a verification of his account for A-not-A questions being typed in F\(^2\)\(^0\). To summarize his view on this, when being used in A-not-A questions, the assertive operator shì occupies F\(^2\)\(^0\), allowing the A-not-A question to be asked assertively, which consequently allows the remnant predicate to convey ‘information focus.’

His take on how it works: “my claim is that the A-not-A form of this assertion marker is a pure question operator. Appearing in F\(^2\)\(^0\), assertive shì-bú-shì takes scope over the sentence constituent V’, which may be extended by various VP modifiers” (p.310). In his view, a sentence such as (22a) is an example of an assertively asked A-not-A question, where the shì-bú-shì appears to be base-generated at F\(^2\)\(^0\), as in (21b). Yet, it is not explained how a question may ever be asked assertively – an assumed speech-act in Gasde (2004) that is quite puzzling to me, let alone how it plays a supporting role to his morpho-syntactic account of A-not-A questions.

22) a. 你是不是喜歡這本書？

nǐ shì bù shì xǐhuān zhè běn shū ？

you shì-bú-shì like this CL book

Gasde’s translation: ‘Do you like this book?’

\(^{37}\) Gasde (2004) assumes that shì is an assertive operator, one that is used to assert a proposition. It is a different assumption from mine. I do not think shì is assertive; I think shì, when preceding predicative categories, i.e., verbs and adjectives, is to mark discourse agreement.
The word shì is used to do a variety of things in Mandarin Chinese, and without further research, it is hard to give a complete account. However, for the current purpose, I assume it to be a discourse agreement marker when it occurs before a predicate or a complete sentence. When it occurs before a complete sentence, it marks the proposition in its scope as being agreed upon by the speaker. When used in the A-not-A constituent, as in (22a), the question presents the speaker as not knowing if his (the speaker’s) agreeing that you likes this book is true. Thus, the more accurate translation for (22a) should be Is it correct that you like this book? Gasde’s (2004) analysis of (22) is completely different from mine. In fact, I think his is incorrect. Therefore, I do not think his argument holds.

To sum up, the syntactic proposal of the formation of Mandarin Chinese A-not-A questions in Gasde (2004) is in general plausible, if the assumption that the interrogative interpretation (or the use) of A-not-A questions is obtained syntactically is got ride of.

2.3.3 MY ACCOUNT

2.3.3.1 THE INCOMPLETENESS OF A-not-A QUESTIONS

I consider A-not-A questions as a type of speech-act. When performed, the speaker presents himself as not knowing if the positive statement is true. Hence, A-not-A questions are a question-type, and they are yes-no questions. I propose that A-not-A questions are semantically incomplete.

How are A-not-A questions semantically incomplete? Questions are assessed with respect to their relevant assertions. A-not-A sentences cannot be used to make assertions because they contain two contradictory predicates, i.e., a positive one immediately followed by a negative one. This type of incompleteness allows speakers to present themselves as not knowing if the positive statement is true, which is exactly what yes-no questions are.
2.3.3.2 ‘Negative’ A-not-A Questions and ‘Negated’ A-not-A Questions

One may wonder why A-not-A questions do not present speakers as not knowing if the ‘negative’ statement is true. I think it has something to do with the most basic human psychology. If we do not know if the sun rises from the East, we ask if the sun rises from the East. Because if we do not know if the sun rises from the East, there is no point for us to ask if sun does ‘not’ rise from the East. It is as simple as that. I think this explanation ‘partially’ explains the lack of negative form of A-not-A questions.

Another reason probably has something to do with the unavailability of interpretation. It is meaningless to negate a semantically incomplete [A-not-A] constituent. Ignorance simply cannot be negated – we cannot negate what we do not know, as shown below. It should also be noted that there is nothing syntactically wrong in negating an A-not-A question, as no rules prohibiting the insertion of a negation before the A-not-A constituent.

Another reason probably has something to do with the unavailability of interpretation. It is meaningless to negate a semantically incomplete [A-not-A] constituent. Ignorance simply cannot be negated – we cannot negate what we do not know, as shown below. It should also be noted that there is nothing syntactically wrong in negating an A-not-A question, as no rules prohibiting the insertion of a negation before the A-not-A constituent.

23) *小狗不可愛不可愛。

xiǎogǒu bù [kēāi bù kēāi].

puppy Neg [cute-not-cute]

Intended: ‘Aren’t puppies cute?’

I think the eventual question is: do ‘negated’ yes-no questions exist? They do not in Mandarin Chinese. There are no negative A-not-A questions, and the reasons are as explained above. How about English? Aren’t the following ‘negative’ yes-no questions? The answer is: yes, there are ‘negative’ yes-no questions, but they are not ‘negated’. A speaker of (24a) does not present himself as negating the cuteness of John’s puppies, nor does a speaker of (24b) conveys the negation of the subject’s (’you’) need to be at the train station by 5 pm. The negation in the following sentences is sentential. What are they about?

24) a. Aren’t John’s puppies cute?

b. Don’t you need to be at the train station by 5 pm?
A type of speech-act strategy proposed by Fiengo (2007) called the *eliminative tactic* gives us the answer. *Open* questions are asked when speakers do not have any basis for belief\(^\text{38}\), and *confirmation* questions are asked when they do. There is a third circumstance where speakers have conflicting bases for belief and one outweighs the other. The outweighed basis is the original point in question and the other is the further point in question. The strategy of the *eliminative tactic* is applied when speakers ask a *question* concerning “whether the bases *contravening* support of a particular answer to the original point in question are to be accepted” (p.65). In other words, the original points are pursed by asking *questions* that serve to eliminate the conflicting bases for belief. For example, Fiengo (2007) exemplifies, it is ninety-five degrees outside and you are wearing a sweater. The outweighing basis for belief is that it is ninety-five degrees and you are hot, but the conflicting basis is that you are wearing a sweater. Asking a negative *yes-no* question *Aren’t you hot?* can eliminate the contravening basis for belief, and the original point in question can be closed. Fiengo (2007) terms this type of questions as *closed* questions. It explains what ‘negative’ *yes-no* questions really are.

To sum up, neither Mandarin Chinese nor English has a sentence-type where *yes-no* questions are ‘negated’, because ignorance simply cannot be negated. The ‘negative’ *yes-no* questions in English are a *question*-type, i.e., a type of speech-act, where speakers *eliminatively* pursue the outweighed points in question.

### 2.3.3.3 Embedded A-not-A Questions

An embedded *A-not-A* question can have two scope interpretations: wide-scope or embedded scope, as shown below respectively.

25) a. 你覺得[明天會不會下雨]?

\[\text{nǐ juéde [míngtiān huì bú huì xiàyǔ]}?\]

\[\text{you think [tomorrow will-not-will rain]}\]

\(^{38}\) In a situation where the two conflicting bases for belief are of equal weight, i.e., they are equally likely to the speaker, Fiengo (2007) argues that they cancel each other out and an *open* question is asked to address this type of ignorance. Equally weighted bases for belief is as good as no belief at all.
‘Do you think it will rain tomorrow?’

b. 他想知道 [明天會不會下雨]。

tā xiǎng.zhīdào [míngtiān ēn bù ēn xiàyǔ ].

he wonder  [tomorrow will-not-will rain ]

‘He wonders if it will rain tomorrow.’

What determines their scope? Huang et al. (2009), following the LF movement proposal in Huang (1991), propose that it is the verb selection of the matrix verb, whose selection of interrogative or non-interrogative complement determines the appropriate CP position for the [A-not-A] constituent at LF and its interpretation. Specifically, they argue that the [A-not-A] constituent, being base-generated as an interrogative, is “a (non-objectual) quantifier ranging over two predicate meanings” (p.255). So, for example, the [A-not-A] constituent in (25a) would be like the following:

26) For which x, x ∈ { hūi xiàyǔ (‘will rain’), bū hūi xiàyǔ (‘will not rain’) }

Adapted from (Huang et al. 2009: (72c))

The semantic presentation in (26) follows the tradition to denote questions in terms of their answers, but even it is were true – which I do not think is – it is not a correct semantic presentation of A-not-A questions. A-not-A questions are not disjunctive questions; they do not seek truth among disjuncts, in this case, the positive and the negative predicates. They are asked to find out if the positive statement is true.

The semantic presentation aside, Huang et al. (2009) propose that a matrix verb that disallows interrogatives in its scope will drive the [A-not-A] constituent out of the embedded clause, resulting in a wide-scope interpretation, and one that requires interrogatives will result in a narrow-scope [A-not-A] interpretation. Thus, for example, (25a) has wide-scope A-not-A reading because the matrix verb 覺得 juéde (‘think’) does not take interrogatives in its scope, and, on the contrary(?), because the matrix verb 想知道 xiǎng.zhīdào (‘wonder’) in (25b) requires interrogatives, the [A-not-A] constituent remains downstairs and the sentence has a narrow-scope reading. However, while the verb selection may paly a role in scope interpretations, I think the selection is not
about ‘interrogatives’, as I do not think questions are syntactically encoded in general. My explanation does not involve interrogative ‘Q’.

Furthermore, Huang et al. (2009) attributes the ungrammaticality associated with embedded [A-not-A] constituents to the constraint of the Empty Category Principle (ECP). Based on the assumption that the [A-not-A] constituent is on a par with other non-argument expressions such as why in English, they argue that island-crossing is prohibited for the [A-not-A] constituent, as shown in (27). Though it is not made clear in Huang et al. (2009), it should be assumed that the complements of verbs that reject interrogatives in its complements are not islands\(^{39}\), and thus ECP is not violated.

\[
27) \text{ *[A-not-A],... [island ... t, ...] ...} \\
\text{(Huang et al. 2009: (79))}
\]

To prove their argument, they demonstrate that the [A-not-A] constituent cannot occur in the subject position, i.e., the Subject island, and have wide-scope reading. The contrasts are shown below.

\[
28) \text{ a. [他高不高興]不重要。} \\
\text{[tā gāo bù gāoxíng ] bú zhòngyào.} \\
\text{he happy-not-happy not important} \\
\text{‘Whether he is happy or not is not important.’}
\]

\[
\text{ b. *[他高不高興]比較好?} \\
\text{[tā gāo bù gāoxíng] bǐjiào hǎo?} \\
\text{he happy not happy more good} \\
\text{Intended reading: ‘Is it better that he is happy, or that he is not happy?’}
\]

\[
\text{(Huang et al. 2009: (76a & b))}
\]

---

\[^{39}\text{In Huang (1988b), he terms those verbs ‘bridge verbs’. ‘Bridge verbs’ allow crossing.}\]
However, the supposed evidence backing up the proposal in Huang et al. (2009), as shown above, actually run against their own account for the [A-not-A] constituent, which states that it ranges over both the positive and the negative meanings. As shown in the grammatical case in (28a), the narrow-scope reading 'whether he is happy or not', a translation given by them, does not mean ‘he is either happy or not happy’. Speakers do not utter (28a) to convey that It is not important that he is happy or it is not important that he is not happy. Rather, speakers assert that It is not important if he is happy – what is not important in the assertion is the happiness of he. And in the what-they-call ungrammatical case in (28b), the sentence would actually have had a proper reading if the [A-not-A] constituent did have a disjunctive reading, because the predicate means ‘which one is better’; the reason (28b) is uninterpretable only because the [A-not-A] constituent does not have both positive and negative meanings as they propose. The subject island condition, which they hope to use to support their case, may not have anything to do with extraction.

I propose that matrix predicates do subcategorize their complements, but in the form of semantic (in)completeness. Some predicates require that their complements be semantically incomplete, while others require the opposite. Those who require the semantic incompleteness of their complement have the upstairs reading of A-not-A questions, i.e., wide-scope reading; those who require the opposite have A-not-A questions dominated by the matrix predicate, i.e., narrow-scope reading. Once the subcategorization requirement is fulfilled, the sentences are grammatical. It is important to note that A-not-A questions are syntactically complete; the subcategorization is purely a semantic requirement. Let us reconsider (25a & b), repeated below. Based on my account, in the direct question (25a), the matrix predicate 覺得 juēde (‘think’) requires that its complement to be semantically incomplete. It is actually quite intuitive. Predicates such as think introduce thoughts, opinions, and the like, and A-not-A questions, being semantically incomplete, cannot denote any of that. As a result, A-not-A questions embedded under such predicates must have wide-scope interpretation, i.e., direct questions. On the other hand, in an indirect question such as (25b), the matrix predicate 想知道 xiǎng.zhìdào (‘wonder’) introduces things not known to the subject, and the semantically incomplete A-not-A question fits the bill perfectly. Thus, semantically, predicates of this type requires incomplete complements.

25) a. 你覺得[明天會不會下雨]?
nǐ juède [míngtiān hui bù hui xiàyǔ]?

you think [tomorrow will-not-will rain ]

‘Do you think it will rain tomorrow?’

b. 他想知道[明天會不會下雨]

tā xiǎng.zhīdào [míngtiān hui bù hui xiàyǔ].

he wonder [tomorrow will-not-will rain ]

‘He wonders if it will rain tomorrow.’

My account for A-not-A questions is quite simple, but it explains everything without involving complex syntactic or semantic stipulation.

2.4  **WH-QUESTIONS**

2.4.1  **WHAT IS A WH-QUESTION?**

I define wh-questions as questioning speech-acts using sentence-types containing wh-expressions. Speakers use these sentence-types to reveal the nature of their ignorance. The two general kinds of ignorance conveyed through uttering these sentence-types conform to the two dichotomous kinds of ignorance-types proposed by Fiengo (2007): the open ignorance and the confirmation ignorance. The former is conveyed when speakers ask open wh-questions; they present themselves as not knowing the marked referent in the utterances. For example, a speaker of (1a) presents himself as simply not knowing what John bought. The latter is conveyed through asking confirmation wh-questions. Those speakers present themselves as having insufficiently strong belief to assert a sentence of the relevant form. Suppose you are told that John bought a Lamborghini, but given the price of this fancy car, you are not completely convinced it is true. Thus, you acquire the belief concerning the point in question, i.e., the Lamborghini bought by John, by asking a confirmation wh-question such as (1b).

1)  a.  What did John buy ___?  

b.  John bought what?
While ignorance-types are universal, languages differ in how they are conveyed through utterances. In English, the two ignorance-types are differentiated by the phrasal positions in which wh-expressions occur. In Mandarin Chinese, on the other hand, they are distinguished by how wh-sentences, which always have wh-expressions in the source positions, are pronounced. Despite the different approaches in differentiating ignorance-types between these two languages, what holds true for both languages is the exhibition of incompleteness. As I elaborate in the later sections, the structural incompleteness, which is associated to signaling open ignorance, is shown in both English and Mandarin Chinese, albeit at different levels. And the incompleteness of speech-act is always implicated through the use of wh-expression instead of expressions that refer in both languages.

To ask an open wh-question in English, one utters a sentence-type that contains a fronted wh-expression, such as (2a & b). I follow Fiengo (2007) in assuming that the empty source positions in open wh-questions are filled with variables bound by the fronted wh-expressions, and because the source positions hold variables, they are the incomplete sites of the structural incomplete open wh-questions. Uttering structurally incomplete sentences presents speakers as being unable to utter the complete ones, hence implicating their open ignorance.

2) English Open Questions

a. **Who** did John vote for ___ ?

b. **Why** did John vote for De Blasio ___ ?

Confirmation wh-questions are, in contrast to open wh-questions, complete in structure; the source positions are filled by wh-expressions. However, given the nature of wh-expressions, i.e., lacking the referring power, uttering sentences with wh-in-situ communicate speakers’ lack of sufficient belief in a presupposed\(^40\) proposition, thereby conveying incomplete assertions. Take (3a) for example. Suppose John is known to be a hard-core Republican, and you expect that he would have voted for the Republican candidate Lhota as the mayor of New York City. Thus, on hearing that he voted for De Blasio, you are unable to internalize the belief that *John voted for De Blasio* due to the conflict between your old belief and the new information. The main point of the utterance, \(\ldots\)

\[^{40}\text{I define presupposition along the line of Stalnaker (1974, 2002) in which a presupposition } p \text{ borne by an utterance only when the speaker treats } p \text{ as the common ground of a conversation.}\)
i.e., to confirm the referent in question, De Blasio, is signaled through the use of a non-referring wh-expression who in the position where the referent in question, De Blasio, is supposed to occur. The use of a wh-expression in the source position is thus taken as a cue that you do not have sufficient belief to assert that John voted for De Blasio. The same reasoning applies to (3b). The speaker utters a sentence where it is a wh-expression why that occurs at the position where the reason John voted for De Blasio supposedly occurs. It conveys that the speaker cannot assert due to insufficient belief.

3) English Confirmation Questions
   a. John voted for who?
   b. John voted for De Blasio why?

As demonstrated in the above examples, what distinguishes Mandarin Chinese wh-questions from English wh-questions is the way open wh-questions and confirmation wh-questions are differentiated. English contrasts these two ignorance-types by uttering wh-expressions in different phrasal positions. Mandarin Chinese, while always having wh-expressions in the source positions, does so by pronouncing confirmation wh-questions with a contrasting rising sentence-final intonation\(^{41}\), which I notate as (↑). Take for example the paralleled Mandarin Chinese examples in (4a & b). The word sequences between open wh-expressions and confirmation wh-questions are identical, but the rising sentence-final intonation signals that the speaker intends to confirm the proposition denoted by the structurally complete sentence.

4) a. 約翰投給誰?
   yuēhàn tóu  gěi  shéi?
   John vote for who

\(^{41}\) It should be noted that the contrasting intonations in Mandarin Chinese between open wh-questions and confirmation wh-questions should not be viewed as formal features, as some linguists do in their analyses. For one, the rising/falling intonations only contrast between the two types of wh-questions, but not in other types of speech-acts. In fact, all open questions are pronounced with falling (or non-rising) intonation in Mandarin Chinese, but so are all assertions. Intonations are not a distinctive feature. Moreover, even if one utters a sentence with the inappropriate intonation, the sentence itself is still well-formed.
i. ‘Who did John vote for?’ (↓)

ii. ‘John voted for who?’ (↑)

b. 約翰為什麼投給白思豪？

yuēhàn wèishénme tóu gěi báisīháo ？

John why vote for de Blasio

i. ‘Why did John vote for Weiner?’ (↓)

ii. ‘John voted for Weiner why?’ (↑)

In terms of incompleteness, I argue that using wh-expressions instead of expressions that refer is itself a marking of incompleteness. The distinctive intonations in Mandarin Chinese wh-questions, i.e., rising or non-rising sentence-final intonation, cues different types of incompleteness, which, I argue, have distinctive LF presentations.

I will elaborate my wh-question proposals in Section 2.4.4. Let us first look at previous research.

2.4.2 PREVIOUS STUDIES

The question concerning why wh-expressions in some languages are fronted while others are not has been one of the most researched subjects in linguistics. Most of the proposals addressing this difference are based on the assumption that wh-expressions need to be syntactically licensed, and, unsurprisingly, what leads to the difference has been taken as a matter of licensing distinctions.

Based on his observation in Japanese wh-in-situ, Baker (1970) pioneers the idea that the position of the Q-morpheme causes wh-in-situ. In his account, wh-movement occurs so as to replace the sentence-initial Q with the wh-expression, and because the sentence-final [question] particles in the head-final Japanese occupy the Q-position, this makes movement impossible. Baker’s (1970) take on wh-in-situ can be viewed as the unavailability of landing site.

Cheng (1991) also considers the presence of a sentence-final particle as being associated to in-situ ness. She opts for a typological account called the Clausal Typing Hypothesis (CTH). She proposes that the clause-type of a sentence and its [interrogative] force is typed in overt syntax, and they are determined by the overt
presence/absence of question particles. A clause with a question particle in $C^0$ is overtly typed as being interrogative. Examples are wh-questions in both Mandarin Chinese and Japanese. On the other hand, a clause without a question particle, like wh-questions in English, must be typed by overtly moving the wh-expression to [Spec, CP], and $C^0$ receives Q through Spec-Head Agreement. Among the issues associated to CTH, two are the most problematic. First, Mandarin Chinese wh-questions do not have mandatory or grammatically required sentence-final question particles, and yet wh-expressions still remain in-situ. Cheng’s (1991) explanation is that the optional sentence-final particle 呢 ne is ‘the’ question particle for Mandarin Chinese wh-questions and when it is not pronounced, it still covertly occupies $C^0$. However, as I have argued in Section 2.1, the particle ne is not a question particle; it does not mark a sentence a question. Thus, it makes little semantic sense to consider it as a question-typing particle. Second, it cannot explain the occurrence of wh-in-situ in English multiple questions, nor can it explain English confirmation questions.

Kayne (1994), similar to Baker (1970), also views the unavailability of the landing site, i.e., [Spec, CP], as the reason of wh-in-situ but from a more updated perspective. In his antisymmetry framework where languages whose order is not the underlying Specifier-Head-Complement (S-H-C) are assumed to have undergone movement, he argues that Japanese achieves its surface order\(^{42}\) by moving IP to [Spec, CP]. But in wh-questions, the wh-expression is forced to stay in-situ because the sentence-final particle has already occupied the [Spec, CP] position. Similar IP-to-SpecCP account for Mandarin Chinese is proposed in Sybesma (1999) and discussed in Section 2.1 Particle Questions.

Chomsky (1995) in his Minimalist Program (MP) assumes a Q-feature in questions in all languages, but he stipulates that they vary in strength, and only the strong Q-feature triggers wh-movement. Specifically, he argues that the weak Q-feature in languages like Japanese and Chinese leaves overt wh-phrasal movement unapplicable, but covert feature-movement is nonetheless necessary. In Chomsky (2000), feature strength is no longer the reason for in-situness. The updated account, aiming to eliminate superfluous operations while accounting for

\(^{42}\) Japanese object occurs higher than V, and therefore Kayne (1994) stipulates that it must occur in the vicinity of the specifier position.
optionality, stipulates the presence/absence of EPP in $C^0$ as the cause of movement/in-situ. The presence of EPP results in the projection of a specifier, and the interrogative $C^0$ (probe) attracts the closest wh-expression (goal) per Agree, triggering movement to [Spec, CP]. Chomsky (2001) further argues that Agree applies only when the probe $C^0$ and the goal, the wh-expression, contain one or more uninterpretable features, and when it is the case, they are ‘active’. A pair of the active probe and the goal, for example, is such that the probe contains [WH] and the goal contains [uWH]. Details aside, there are at least two issues of concern in his account. First, the assumption that EPP in $C^0$ triggers overt phrasal movement and the lack of it results in no phrasal movement in LF. But it is unable to explain sentences exhibiting lexical association, e.g., *Who does he only like __ ? Second, the postulation of EPP does not seem to play any semantic role in the operation other than affecting the pronunciation.

Pesetsky (2000), based on the strict contrast between the multiple fronted wh-expressions in Bulgarian and the wh-in-situ Japanese and Korean, argues for a typological account where languages differs in terms of the number of specifiers allowed in CP. Under his account, wh-in-situ is due to the typological requirement that there is no specifier in CP, and in languages whose specifier in CP is typed ‘multispecifier’ i.e., $C_{m-spec}$, wh-expressions must undergo phrasal movement to [Spec, CP]. As for languages such as English where only one wh-expression is fronted in a multiple wh-question, Pesetsky (1987, 2000) argues for a D(iscourse)-linked account, in which D-linked wh-expressions only undergo feature movement. It is vastly unclear to me what D-linking is in general – how is any segment of an utterance which pertains to a discourse not discourse linked? Moreover, it is unclear in his proposal if there is any motivation, particularly a semantic one, for a specifier of CP to be typed multiple specifier.

In the following section, I review two main approaches to Mandarin Chinese wh-questions, specifically wh-in-situ: the movement approach and the non-movement approach.

2.4.2.1 The Movement

Unlike its English counterparts, there are no overt configurational distinctions for Mandarin Chinese wh-questions; Mandarin Chinese wh-expressions always stay in-situ. Under the assumption that “questions and sentences with focus are universal sentence-types” (p.369), Huang (1982a) is the first to propose that Mandarin Chinese, though not overtly showing configuration properties, exhibits abstract involvement in the rules that are applied to
movement languages. He argues that Mandarin Chinese employs covert movement, one that occurs at Logical Form (LF), and this covert movement relocates the in-situ wh-expressions to a clause-peripheral position that is appropriate for scope interpretations. Specifically, he proposes Move WH and FOCUS, a movement rule that pertains to Chomsky’s (1977) Move α. This movement operation successive-cyclically moves a category that contains [+WH] or [+FOCUS] to COMP, resulting in relativized or topicalized constructions. A coindexed trace is then left at the source position, as a result of this operation. Most importantly, Huang (1982a, b) views the moved wh-expression as a trace-binding quantifier that underwrites the domain from which a value that makes the proposition true is drawn. A consequential assumption is that wh-arguments are viewed as a noun with an added wh-feature. Take who for example, Huang (1982a) states that it is everything a person denotes with an additional [+WH] feature, i.e., [+WH, +N, +animate, +human ...].

2.4.2.1.1 PROPOSED EVIDENCE FOR THE MOVEMENT ACCOUNT

Huang’s (1982a, b) argues that the LF movement account is evidenced upon the following two observations: selectional requirements and movement restrictions. More updated arguments can also be seen in Huang (1994).

Selectional Requirements

Huang (1982a, b) argues that both English and Mandarin Chinese matrix predicates exhibit selectional requirements toward the embedded wh-expressions; the difference lies only in how the selectional requirement is satisfied. He proposes that there are three types of verbs, each of which has its own selectional requirement. In English, verbs such as think cannot select questions, and therefore the embedded wh-expression must undergo overt movement to be out of the scope of think, as shown in (5a & b). Verbs such as wonder, on the other hand, must select questions, thereby retaining the wh-expression inside the embedded clause, as shown in (6a & b). Verbs such as remember can optionally select questions; thus, there is no syntactic requirement as to whether or not the wh-expression should be absent in the embedded clause, as shown in (7a & b).

5) a. What did John think Bill cooked?
   b. *John thought what Bill cooked.
6)  a.  *What did John wonder Bill cooked?
    b.  John wondered what Bill cooked.

7)  a.  What did John remember Bill cooked?
    b.  John remembered what Bill cooked.

Huang (1982b) argues that similar selection requirements are observed in Mandarin Chinese, but the requirements are met by way of scope obtainment in LF. For example, the matrix predicate 覺得 jué de ('think') prohibits a question in its scope, and to meet this requirement, the wh-expression must move out of the embedded clause, resulting a wide-scope reading, as shown in the available (8a) reading. On the other hand, the verb 想知道 xiǎng.zhīdào ('wonder') requires the presence of a question in its scope, and thus the embedded wh-expression remains downstairs, as shown in the available downstairs reading (9b). Finally, the verb 記得 jídé ('remember') can optionally take a question in its scope, and thus both the wide scope interpretation (10a) and the narrow scope interpretation (10b) are possible.

8)  約翰覺得比爾煮了什麼?
    yuēhàn jué de bìě zhǔ le shénme?
    John  think Bill cook-ASP what
    a.  ‘What did John think Bill cooked?’
    b.  *Intended: ‘John thought what it was that Bill cooked.’

9)  約翰想知道比爾煮了什麼。
    yuēhàn xiǎng.zhīdào bīě zhǔ le shénme
    John  wonder Bill cook-ASP what
    a.  *Intended: ‘What is it that John wonders Bill cooked?’
    b.  John wondered what Bill cooked.

10)  約翰記得比爾煮了什麼？/。
     yuēhàn jídé bīě zhǔ le shénme
     John  remember Bill cook-ASP what
a. ‘What did John remember Bill cooked?’
b. ‘John remembers what Bill cooked.’

Huang (1982a, b) captures the important observation concerning the uses of the matrix predicate and its relation with the embedded wh-expression, but his subcategorization account, i.e., verb selections, is insufficient to account for confirmation wh-questions. For example, the verb think, according to Huang (1982b), cannot tolerate a WH in its scope, but a confirmation wh-question, such as one in (5b’) below, has a wh-expression in its scope, and it presents the speaker as confirming the thing that John thought Bill cooked. Take (6b’) for another example. The verb wonder, according to the Verb Selection, must take WH in its scope and render a statement, but a sentence with an embedded WH can still be used to ask a confirmation yes-no question, Did John wonder what Bill cooked? Note that the confirmation yes-no question in (6b’) should not be confused with a confirmation question which seeks to confirm what John wonders Bill cooked.

5) b’. John thought Bill cooked what?

6) b’. John wondered what Bill cooked?

The complexity of wh-expressions and their uses is beyond what a single wh-feature can explain. As shown in the following examples, a wide-scope wh-argument 什麼 shénme (‘what’) can be used to ask a question, as in (11a), but it can also be used to make an assertion, as shown in (11b). And sometimes, even when a wh-sentence is cued as an open wh-question, the speaker can still be understood as not really asking a question. Suppose all your guests knew you were the one who cooked tonight’s dinner. Your response to a compliment, such as (11c), would not be taken as a real question, because no one else but you knew better the amount of effort it took for tonight’s dinner to happen. Asking an open question about it to people who obviously know less than you do presents the speaker as presupposing that they know the answer, and indirectly implicates there is not much effort involved. All these are beyond what syntax can or should explain.

11) The use of shénme

a. 你吃什麼?

nǐ chī shénme?
you eat  what
‘What do you eat?’

b. 什麼都可以。
shénme dōu kěyǐ
what  all  fine
‘Anything is fine (with me).’

c. 這有什麼(↓)?
zhè yǒu shénme
this  have  what
‘What did it take? (This is nothing.)’

MOVEMENT RESTRICTIONS

The second argument for Huang’s (1982b)43 Mandarin Chinese movement account is the exhibition of movement constraints on both wh-adjuncts and wh-arguments. In addition, the extraction of a wh-adjunct out of an island has greater grammatical consequence than one of an wh-argument, which can only be explained by ECP, a constraint for movement.

Huang (1982b) demonstrates that the extraction of an adjunct wh-expression out of a syntactic island, i.e., relative clause, adjunct clause or sentential subject, invariably leads to severe ungrammaticality in English, as shown in my examples (12a-c) respectively.

12)  a.  *How do you like [the chef who cooked your ramen ___ ]?
    b.  *How were you happy [after the chef cooked your ramen ___ ]?
    c.  *How would [for the chef to cook your ramen ___ ] be special?

____________________________________________________

43 I summarize and review Huang’s (1982b: chapter 7) LF movement in his section. The order of his arguments is rearranged in such a way that is more fitting for my thesis.
He argues that a parallel observation can be made in Mandarin Chinese. The lack of direct question interpretations is observed when wh-adjuncts occur in syntactic islands and it is taken as evidence of failed wh-adjunct extraction in LF. The following examples are mine; they are the analogous Chinese examples of the English examples presented in (12a-c). They show that when the wh-adjunct 為什麼 wèi.shénme (‘why’) occurs in the relative clause, adjunct clause and sentential subjects, direct questions cannot be formed.

13) a. *你喜歡[在內 為什麼 煮你的拉麵的廚師]?

   nǐ xiǎihuān [np wèi.shénme zhǔ nǐ de lāmiàn de chūshī?

   you like why cook you De ramen DE chef

   ‘Why, do you like the person who cooked your ramen t,’?

b. *你高不高興[在廚師 為什麼 煮了你的拉麵以後]?

   nǐ gāo-bù-gāoxìng [pp zài chūshī wèi.shénme zhǔ le nǐ de lāmiàn yǐhòu]?

   you happy-not-happy [pp ZAI chef why cook-ASP you DE ramen after]

   ‘Why, were you happy after the chef cooked your ramen t,’

c. *[在內 為什麼 煮你的拉麵]很特別?

   chūshī wèi.shénme zhǔ nǐ de lāmiàn hěn tèbié?

   chef why cook your DE ramen very special

   ‘Why is [np that the chef cooking your ramen t] special?’

In terms of argument-adjunct asymmetry, Huang (1982b) argues that it is observed in terms of well-formedness in English. The extraction of a wh-argument, such as one in (14a), is not as bad as the extraction of a wh-adjunct in (14b).

14) a. ??What do you wonder [how the chef cooked ___ ]?

   b. *How do you wonder [what the chef cooked ___ ]?

Huang (1982b) argues that the asymmetry in Mandarin Chinese is observed in terms of interpretation. The following example is taken from Huang (1994). When both 誰 shéi (‘who’) and 為什麼 wèi.shénme (‘why’) are
embedded under想知道 xiăng.zhīdào ('wonder'), the interpretation where the wh-adjunct has the wide scope is not obtainable.

15) 你想知道[我為什麼買什麼]?

nǐ xiăng.zhīdào [wó wèi.shénme mǎi shénme]?

you wonder [ I why buy what ]

i. ‘What is the x such that you wonder why I bought x?’

ii. ‘*What the is the reason x such that you wonder what I bought for x?’

(Huang 1995: (124))

2.4.2.1.2 ECP, Subjacency and Condition on Extraction Domain

The paralleled properties regarding selectional requirements and movement constraints exhibiting in both English and Chinese – a movement language and an in-situ language respectively – leads Huang (1982b) to propose that both languages undergo movement, and the movement observes Chomsky’s (1981) Empty Category Principle (ECP). Because movement takes place in different levels for each language, i.e., overt movement for English and covert for Chinese, ECP is assumed to be an underlying rule for both levels. For example, the unavailability of a direct question interpretation, such as one in (15b), repeated below, can therefore be explained as the wh-adjunct, wèi.shénme ('why'), failing to be antecedent governed. The availability of the wide-scope interpretation of shénme ('what'), on the other hand, is due to the proper lexical government of the wh-argument by the verb 買 mǎi ('to buy').

15) 你想知道[我為什麼買什麼]?

nǐ xiăng.zhīdào [wó wèi.shénme mǎi shénme]?

you wonder [ I why buy what ]

i. ‘What is the x such that you wonder why I bought x?’

ii. ‘*What the is the reason x such that you wonder what I bought for x?’

(Huang 1994: (124))
While the ECP explanation supports the LF movement proposal, the lack of Subjacency effect in LF has been noted to be problematic, because there is no good reason to say that the locality constraint is irrelevant in LF. As shown in the following examples adopted from Huang (1994), all the *wh*-arguments can be freely extracted at LF without exhibiting Subjacency violation, but little has been explained other than the assumption that Subjacency does not apply in LF.

16) a. Who remembers why we bought what?
   b. Who likes books that criticize who?
   c. Who thinks that pictures of who are on sale?
   d. Who got jealous because I talked to who?
   e. Who bought the books on which table?
   f. Who saw John and who?

(Huang 1994: (128))

A comprehensive proposal should explain why *wh*-arguments can be excused from Subjacency condition in LF. A plain assumption that Subjacency and Condition on Extraction Domain (CED) constrains only overt movement and that they surface well-formedness rules, as Huang (1982b) does, is unsatisfactory. After all, if movement is to be taken as a general operation for *wh*-expressions across languages, all movement related conditions should be respected, unless there are good reasons not too.

One general approach to address this problem is to assume that Subjacency and CED are also applicable at the level of LF; their seeming absence is due to a process called pied-piping. Nishigauchi (1986) proposes that the entire island, including the *wh*-expression inside it, is non-discriminatively pied-piped to COMP during LF movement, and thereby avoiding Subjacency and CED violation. However, there are problems with this approach. Fiengo et al. (1988) point out three. First, it does not show whether Subjacency and CED is at work at LF. Take Italian for example, if one is to assume the ungrammaticality of (17a) to be caused by the violation of CED at LF due to the extraction of *chi* ("who") out of the adjunct clause, then one should predict (17b) to be equally ungrammatical, since *l'avvocato di chi* ("the lawyer of whom"), though being pied-piped as a chunk at LF, is
extracted from the adjunct clause as well. But it is not the case. Nishigauchi’s (1986) version of pied-piping does distinguish the grammatical distinction between these two sentences.

17) a. *Questo e’ successo mentre chi parlava alla stampa?

This happened while who was speaking to the press

b. ??Questo e’ successo mentre l’avvocato di chi parlava alla stampa?

This happened while the lawyer of whom was speaking to the press

(Fiengo et al. 1988: (26a & b))

Second, Nishigauchi’s (1986) pied-piping account assumes that a wh-question is always answered with the full pied-pied phrase, and therefore no further extraction is needed. But this is not the case. Fiengo et al. (1988) demonstrate that a wh-question, such as (18), is best answered without repeating the entire pied-piped phrase. If wh-questions can be answered in this way, further extraction of the wh-expression after pied-piping may be necessary.

18) [誰看這本書]最合適?

[shéi kàn zhè běn shū] zúi héshí?

[who read this CL book] most appropriate

Lit.: ‘That who read this book is most appropriate?’

a. *張三看這本書。

zhāngsān kàn zhè běn shū.

Zhangsan read this CL book

‘That Zhangsan read this book.’

b. 張三。

zhāngsān.

‘Zhangsan.’

(Fiengo et al. 1988: (29))
The third observation is related to the first two. Fiengo et al. (1988) argue that if the wh-expression is assumed to remain in the pied-piped island in LF, then scope distinctions cannot be made. For example, a sentence such as (19) semantically has a scope representation such as: who, > most people > every picture of t; however, if every picture of who is assumed to be pied-piped and remains whole at LF, then there is no way to distinguish the different scopes among these three quantifiers\(^\text{44}\).

19) Who, did most people like [every picture of t]?

(Fiengo et al. 1988: (32))

The solution proposed by Fiengo et al. (1988) is to assume that a wh-expression undergoes both QR and wh-movement; the former is done via adjunction to IP and the latter move-\(\alpha\) to [SPEC, CP]. Because pied-piping, which occurs to quantificational noun phrases (QNP), is not wh-movement but QR, the operation debarrierlizes the bounding nodes that QNP may potentially cross\(^\text{45}\) and thereby sidesteps violations that are associated to barrier crossing\(^\text{46}\). A sentence such as (20a) would violate Subjacency if everybody is to be extracted directly out of subjectival QNP by crossing two bounding nodes, i.e., NP and IP. The violation can be avoided if the QNP picture of everybody adjoins IP via pied-piping, and then the quantifier everybody is raised out of the pied-piped chunk to adjoin IP via QR, conveying that pictures are quantified by individuals, e.g., \{picture of John, picture of Mary, picture of Bill\...\}, as shown in (20b) below:

20) a. Pictures of everybody are on sale.

b. [IP Everybody [IP [picture of t], [IP t, are on sale]]]

(Fiengo et al. 1988: (47 & 48))

\(^{44}\) Fiengo et al. (1988) assume that wh-expressions are both interrogative phrases and existential quantifiers.

\(^{45}\) Chomsky’s (1986a) barrier framework is a corollary to the revised pied-piping hypothesis in Fiengo et al. (1988). Adjunction to IP is considered as crossing a segment of IP, rather than a full IP. Therefore, it avoids IP becoming the second bounding node that a QNP crosses, thereby avoiding Subjacency violation.

\(^{46}\) It should be noted that Subjacency violation occurs when movement crosses two bounding nodes in one fell swoop, but one bounding node is sufficient to prevent proper antecedent government, constituting ECP violation.
The most important advantage of the revised pied-piping hypothesis is that the scope distinction problem presented in Nishigauchi (1986) can be resolved. Let us reconsider (19), repeated below. For the scope distinction to be appropriately distinguished, i.e., whoi > most people > every picture of ti, after who undergoes overt wh-movement to [Sepc, CP], the QNP containing the trace of the extracted who undergoes QR to adjoin IP at LF, and the subject most people follow suit afterwards, allowing scope-distinctions to be properly represented, as in (21).

19) Who, did most people like [every picture of ti]?

(Fiengo et al. 1988: (32))

21) [CP Who, did [IP [most people]i [IP [every picture of ti]]i [IP ti like ti]]i]

There are three remaining issues with the proposed pied-piping hypothesis in Fiengo et al. (1988). First, it is unclear if pied-piping allows intermediate adjunction stops. As shown in (22), if the QNP shéi de měi yì zhāng zhàopiàn (‘every photo of who’) is raised in one fell swoop to adjoin the outermost IP, then Subjacency would still be violated, i.e., crossing two IPs. If intermediate stops are allowed, it remains unclear how the embedded QNP-subject dàbùfèn de rén (‘most people’) can undergo QR without stepping over the trace left by the pied-piped embedded QNP-object shéi de měi yì zhāng zhàopiàn (‘every photo of who’).

22) 他聽說約翰說大部分的人喜歡誰的那一張照片?

tā tǐngshūō [CP [yuēhàn shuō [CP [dàbùfèn de rén xīhuān [NP shéi de měi yì hāng zhàopiàn]]]]] ?

he hear John say most DE people like who DE every one CL photo

Intended: ‘Who, did he hear that John said that most people like every photo of ti?’

The second issue is that the current minimalist approach has eliminated S-Structure altogether. The distinction between overt wh-movement and covert QR is a challenge. The third issue is raised by Aoun & Li (1993a, b) as well as Tsai (1994a), which concerns the violation of Principle of Lexical Association (PLA). I discuss this last issue in the following section.
2.4.2.2 **The Non-Movement**

One of the problems with the LF movement approach is that some evidence points to its opposite. Aoun & Li (1993b: 206) cite literature concerning the observation that the adverb *only* must be associated to an element in its c-domain, and that the associated element cannot be a trace. For example, the person being liked, such as *Mary* in (23a & b), cannot be overtly topicalized, as shown in the contrasting (24a & b)).

23) a. He only likes Mary. (...he doesn’t like her.)
   
   b. 他只喜歡瑪麗。

   tā zhǐ xīhuān mǎi.

   He only like Mary

   ‘He only likes Mary.’

   (Aoun & Li 1993b: (24a & b))

24) a. *Mary, he only likes tᵢ.
   
   b. 他只喜歡 tᵢ的那個人 i

   mǎi, tā zhǐ xīhuān tᵢ.

   Mary, he only likes

   ‘Mary, he only likes.’

   (Aoun & Li 1993b: (26a & b))

Nor can a *wh*-argument associated to *only* be moved to [SPEC, CP], as shown in (25a & b). Note that (25b) is not a sentence but an NP with internally headed relative clause (IHRC)\(^\text{47}\), and its ungrammaticality, according to Aoun & Li (1993b), is due to the extraction of 人 rén (‘person’) from the relative clause.

25) a. *Who, does he only like tᵢ?
   
   b. 他只喜歡 tᵢ的那個人

---

\(^{47}\) The Mandarin Chinese version of (25a) would be grammatical, and that has been taken as an evidence in Aoun & Li (1993b) to prove that the *wh*-expression has not moved.
The relation between the operator *only* and the associated element in its c-domain is being generalized as Principle of Lexical Association (PLA) in Tancredi (1990). Examples like (25a & b) are viewed by Aoun & Li (1993b) as evidence that these *wh*-expressions, in both English and Mandarin Chinese, do not undergo movement. Furthermore, citing Tancredi (1990) that PLA applies at LF, Aoun & Li (1990) argue that if in-situ *wh*-expressions are allowed to move at LF, it would cross *only* and consequently violate PLA. Thus, they argue that, for example, the in-situ *what* in (26a) and 誰 *shéi* (‘who’) in (26b) must not move in LF.

26) a. Who likes what?
   
b. 他只喜歡誰?
   
   tā zhī xǐhuān shéi?
   
   he only like who
   
   ‘Who does he only like ___?’

(Aoun & Li 1993b: (26a & b))

Without resorting to LF movement, what Aoun & Li (1993b) aim to resolve is how interrogative force and scope information is granted to *wh*-in-situ in *wh*-questions. Thus, they stipulate the existence of a question operator (Qu), which is base-generated in the SPEC position of a Qu-projection, i.e., [SPEC, QuP]. This operator locally binds the in-situ *wh*-expression, supplying it with interrogative interpretation, and subsequently undergoes overt feature movement to [SPEC, CP] for scope interpretation. This way, in-situ *wh*-expressions are able to receive interrogative interpretation as well as scope information.

They propose different ways that the question operator binds the *wh*-expression in English and Mandarin Chinese. In English, they argue that the fronted English *wh*-expression is the question operator itself, so when there is only one *wh*-expression present in the *wh*-question, the question operator binds itself and the movement
takes place overtly, resulting in the fronted \textit{wh}-expression. But there is a problem with this stipulation. As noted by Aoun & Li (1993b) themselves, Principle C would be violated if two distinct \textit{wh}-expressions were to be bound by the same Qu-operator. As demonstrated in (27a), \textit{who} is bound by Qu but at the same time is co-indexed with \textit{what}, all while \textit{who} and \textit{what} refer to two unique entities. To remedy this problem, Aoun & Li (1993b) propose an extra step called ‘Absorption’. According to them, a proper Qu-binding process for multiple distinct \textit{wh}-expressions should involve the lower \textit{wh}-expression \textit{what} being absorbed into the higher \textit{wh}-expression \textit{who} before the binding relation takes effect between Qu and the upper \textit{wh}-expression \textit{who}. The question operator therefore represents not only the scope of \textit{who} but \textit{what} as well. As shown in (27b), the denotation $i[j]$ represents that the \textit{wh}-expression denoted by $j$ is being absorbed into the \textit{wh}-expression denoted with $i$. Because of the Absorption process, Aoun & Li (1993b) argue that the absorbed \textit{wh}-expression, e.g., the \textit{what} in the case of (27), and the Qu-operator do not have a true binding relation, and hence, Principle C is not violated. It is unclear to me, however, what the semantic motivation is for the index of \textit{what} being absorbed by \textit{who}. The stipulation of Absorption seems to exist only to avoid Principle C violation.

27) Who saw what?
   a. $^{*}$Qu$_i$ [Who$_i$ ... what]
   
   b. Qu$_{[i]}$ [Who$_i$ ... what$_j$]

(Aoun & Li 1993b: (68) & (69))

Similarly in Chinese, Aoun & Li (1993b) propose that “a \textit{wh}-in-situ does not need to raise to the Spec of Comp at LF and that in Chinese the \textit{wh}-in-situ is coindexed and interpreted with respect to a question operator (Qu-operator) that is raised to the appropriate Spec of Comp position by S-Structure” (p. 210). In other words, in Aoun & Li’s (1993b) account, both English and Mandarin Chinese \textit{wh}-expressions undergo overt feature movement except that the when the English ones raise, they bring the \textit{wh}-expressions with them, because they are 2-in-1 entities, i.e., a question operator as well as a \textit{wh}-expression.
In addition, Aoun & Li (1993b) argue that the sentence-final particles present in both Japanese and Chinese questions are Qu-markers. Structurally, they assume that these Qu-markers occur in $C^0$ in head-final Japanese and Chinese, and they license the in-situ wh-expressions via Spec-head agreement with the question operator in \([\text{Spec, CP}]\). For example, a wh-question with a sentence-final particle such as (28a) has a Qu-marker in $C^0$, and the in-situ wh-expression 誰 shéi ('who') is bound by the question operator in \([\text{Spec, CP}]\), which agrees with the sentence-final question particle ne.

28) a. 誰來呢？
    shéi lái ne?
    who come Q
    ‘Who is coming?’

    (Aoun & Li 1993b: (42a))

b. [\[IP shéi lái ne]]
    who come Q

But, again, this proposal is premised on the incorrect assumption that the sentence-final particle ne is interrogative. As I have argued in section 2.1, the sentence-final particle ne is not a question marker, and this undermines Aoun & Li’s (1993b) proposal for wh-questions.

An interesting thing to note is that Aoun & Li (1993b) seem to deem the difference between English and Chinese wh-questions as being how the question operator is generated. As stated in Aoun & Li (1993b), a question operator in English is generated in the projection of Qu, whereas Chinese question operator is generated in XP, a projection that “generates different types of sentences such as questions, indicatives and suggestions” (p.232). The proposed difference is illustrated in the contrasting structure, shown in (29 & 30) respectively.

29) English Qu
Essentially, they propose that X in Mandarin Chinese can potentially have four combinations of features generated from [±Qu] and [±wh]. Specifically, [+Qu, −wh] yields yes-no questions, [−Qu, −wh] yields statements, [−Qu, +wh] “may be related to exclamatory sentences” (p.233), and [+Qu, +wh] yields wh-questions. In other words, Aoun & Li (1993b) assumes that syntactic features generate sentences with designated uses. Unfortunately, the reality is that features are not sufficient in explaining the garden varieties of uses of sentence-types. In addition
to being asked by a speaker who is truly puzzled by what the addressee is talking about, *What are you talking about?* can also be asked by a speaker who clearly knows what the addressee is talking about but is annoyed by his statement. Syntactic features are not sufficient in describing the uses of sentence-types, at least not in as straightforward a manner as they are expected to be.

Furthermore, they argue that the question operator (Qu) occurring in [Spec, XP], will “consequently moves to the Spec of Comp inside or outside of the clause” (p.233) and it is my understanding that what determines the landing site of the operator, i.e., inside or outside of the clause, is the selectional requirement of the verb. But it is unclear to me what determines the landing site when the matrix verb allows both [+Qu] and [-Qu], such as (31).

\begin{align*}
31) & \text{你記得誰喜歡他} \ ? / . \\
& \text{nǐ jìdé [shéi xǐhuan tā ]}. \\
& \text{you remember [who like him]}
\end{align*}

i. ‘Who likes him?’

ii. ‘[You think I like him but] I don’t.’

Tsai (1994a) also argue for a non-movement approach. He views *wh*-expressions in *wh*-questions as variables that are bound by a question operator, and he argues for a morphological distinction between English and Chinese *wh*-expressions. English *wh*-expressions, according to Tsai (1994a), are morphologically complete in the sense that it incorporates operators at the morphological level. For example, the quantificationally universal *whatever* is morphologically equipped with the operator *ever*, the quantificationally existential *somewhat* is with *some*, and *what* is with a question operator. He argues that Chinese *wh*-expressions, on the other hand, are not morphologically complete but analytic and discontinuous in the sense that the operators are not part of the word. The same *wh*-expressions can be used to convey universal or existential quantification as well as interrogativity, provided that they are bounded by an appropriate operator. The examples in (32a-c) are mine. They demonstrates how one *wh*-expression, *shénme* (‘what’) can have different interpretation by being bound by a different operator. Based on Tsai’s (1994a) argument, the uses shown in (32a-c) can be explained by the schema, shown in (33), which is also mine.
32)  a. 我什麼都喜歡吃。
   (Universal)
   wǒ shénme dōu xǐhuān chī.
   I what like all eat
   ‘I like to eat everything.’

   b. 你一定要吃點什麼。
   (Existential)
   nǐ yídìng yào chī diǎn shénme.
   you must want eat alittle what
   ‘[I insist that/I think that] you must eat a little something.’

   c. 你喜歡吃什麼?
   (Interrogative)
   nǐ xǐhuān chī shénme.
   you like eat what
   ‘What do you like to eat?’

33) [CP OP,... shénme,...] what

Tsai (1994a) goes on to argue that this distinction explains why English interrogative wh-expressions undergo overt wh-movement, whereas Chinese interrogative wh-expressions stay in-situ. According to Tsai (1994a), English interrogative wh-expressions enter the lexicon equipped with [+Q], therefore they are compelled to check off Q via overt movement; for Chinese, the question operator associated to the wh-in-situ has already satisfied the checking requirement, and therefore no movement is necessary. Tsai’s (1994a) argument, though capturing some important observations, is also deprived of the explanations that account for the garden varieties of uses of a single sentence-type. As I have explained earlier, the stipulation of features intended to incorporate speech-acts into syntax is a lost cause.

34)  a. What are you thinking?!

   b. Who are you to talk to me this way?!
Moreover, not all *wh*-expressions occur in the scope of the associated operators. Reconsider (32a), repeated below. The *wh*-expression 什麼 *shénme* ('what') occurs outside the scope of its operator 都 *dōu* ('all'). Given PLA, it should result in a violation, but the fact that it is a well-formed sentence suggests that the relation between the *wh*-expression *shénme* ('what') and the adverb *dōu* ('all') may not necessarily be of a binder-bindee relation.

32) a. 我什麼都喜歡吃 ____。

    *wō* *shénme* *dōu* xǐhuān chī tǐ.

    I what all like eat

    ‘I like to eat everything.’

There are more examples showing the limitation of Tsai’s (1994a) account in which the interpretations of *wh*-expressions are decided by the operator they are associated with. As demonstrated in (32b), repeated below, and (35), shown below, while the *wh*-expressions are bound by the same operator, sentences that differ only in the subjects lend themselves to different uses. When the subject is a second person, the *wh*-in-situ is limited to expressing existential quantification, but when the subject is not a second person – a third person or a first person – the sentence-type can also be used to ask a confirmation question. Unless confirmation questions are excluded from the account – which is obviously what I am arguing against – one must address this difference. And I suspect that the answer can be found in syntax.

32) b. 你一定要吃點什麼。

    *nǐ* yìdìng yào chī diǎn *shénme*.

    you must want eat a.little *what*

    ‘[I insist that] you must eat a little something.’

35) 約翰/我一定要吃點什麼。

    *yuēhàn/wǒ* yìdìng yào chī diǎn *shénme*.

    John/I must want eat a.little *what*

    i. ‘[I insist that/I think that] John/I must eat a little something,’

    ii. ‘John/I must eat a little what?’
As for the argument-adjunct asymmetry that is deemed as the prime evidence for movement in Huang (1882b), Tsai (1994a) argues that the distinction can still be made under his proposal. He argues that Chinese wh-arguments are variables, while wh-adjuncts\(^\text{48}\) are not. They should be categorically treated as being born with an inherent [+Q]. Essentially, Tsai (1994b) proposes that Chinese wh-adjuncts are equivalent to English wh-expressions in terms of its built-in [+Q]; as a result, it must move to [Spec, CP] to have its feature checked, a process that he argues to take place in LF and subject to movement conditions such as ECP and Subjacency. Yet, what is missing from his account is why Mandarin Chinese wh-adjuncts do not move overtly like their English counterparts, especially if they are truly equivalent to English wh-expressions with a built-in [+Q]. His proposal is founded on observation that wh-adjuncts do not exhibit Quantificational Variability Effects (QVE). That is, the lack of universal and existential interpretations for wh-adjuncts, e.g., the lack of *whyever\(^\text{49}\), *somewhy and *anywhy in English and the lack of existential and universal interpretation for adjuncts like \(\text{wèishénme}\) (‘why’) and \(\text{zhènme}\) (‘how’) and the \(A\text{-}not\text{-}A\) constituent. His observation, unfortunately, does not capture the complexities of wh-expressions. As shown in (36a & b) below, 為什麼 \(\text{wèishénme}\) (‘why’) and \(\text{zhènme}\) (‘how’) can in fact have existential and universal interpretations.

36) a. 我記得為什麼。

\[\begin{align*}
\text{wǒ} & \quad \text{jìdè} \quad \text{wèishénme}. \\
\text{I} & \quad \text{remember} \quad \text{why} \\
\text{‘I remember why.’}
\end{align*}\]

b. 你怎麼說，我就怎麼做。

\[\begin{align*}
\text{nǐ} & \quad \text{zhènme} \quad \text{shū} \quad \text{wǒ} \quad \text{jìù} \quad \text{zhènme} \quad \text{zuò} \\
\text{you} & \quad \text{how} \quad \text{say} \quad \text{I} \quad \text{then} \quad \text{how} \quad \text{do} \\
\text{‘I will do whatever you say.’}
\end{align*}\]

\(^{48}\) Note that Tsai (1994b) as well as all the researchers whose accounts for questions are formal consider the \(A\text{-}not\text{-}A\) constituent as an adjunct.

\(^{49}\) As pointed out by Fiengo through a personal discussion, whyever is in fact a word in use, and it is used exclusively to ask questions, e.g., \(\text{Whyever would he do that?}\)
So far, I have demonstrated the limitations of syntactic accounts for *wh*-questions. In the following section, I discuss and propose a completely different approach to the same questions.

2.4.3 SPLITTING THE POWERS — AN ALTERNATIVE VIEW TO EXPLAIN WH-EXPRESSIONS

The common thread to the previous approaches is the premise of their accounts – that sentences used to ask questions possess a syntactic/semantic question feature or question operator. This premise limits their proposals to only a subset of questions, namely, *open* questions, and, consequently, the accounts fail to capture the complexities of speech-acts, which includes *confirmation* questions and ones that do more than just ask *open* questions, e.g., rhetorical questions. The account proposed in Fiengo (2007) does not take the same route. Essentially, he views *questions* as speech-acts rather than syntactically annotated sentence-tokens. A sentence-type can be used to ask *questions* because it can appropriately convey the ignorance of the speakers, and the reason it can convey ignorance is because it is incomplete in some way. Thus, to understand how *open* and *confirmation* *wh*-questions are asked, one must first understand how the sentence-types used to perform these two speech-acts are incomplete.

The most obvious structural characteristic for *open* *wh*-questions is the fronting of the *wh*-expression. Fiengo (2007) argues it is a result of *splitting*, a completely free and optional operation previously misrepresented as movement\(^{50}\). *Splitting*, as the name suggests, separates an expression into two syntactic positions according to its semantic powers. Although no additional syntactic element is introduced to the syntactic structure through this operation, each segment of the *split* expression is able to express distinctive semantic powers in its occurring position. Take the *wh*-expression for example. According to Fiengo (2007), *wh*-expressions have “complementary powers, the power to bind and the power to be bound” (p. 130). Therefore, when *splitting* occurs to a *wh*-expression, the fronted *wh*-segment is able to bind with the in-situ *wh*-variable. Expressing the powers of an

\(^{50}\) Fiengo (2007) argues that because, in its first formal account in Chomsky (1955, 1975), *movement* is done through a process of *copy > paste > delete*. Copy would create two identical syntactic elements each of which conveys distinctive syntactic powers in distinctive syntactic positions. This would unnecessarily create additional syntactic occurrence to the phrasal structure.
expression is not the only effect brought upon by the splitting of a wh-expression. Fiengo (2007) states that it allows scope to be interpreted. The wh-variable which occurs at the source position is able to receive proper scope interpretation through the binding relation with the fronted wh-segment.

It is important to note that splitting is a free and optional operation; a sentence that would otherwise be grammatical if splitting occurs must be ruled out by independent regulations. Take for example the NP ensuing a passive participle. When it splits, the power to refer can be expressed by the NP-segment at the subject position and the power to be an argument by the NP-variable at the originating object position. In the case where this NP does not split, the ungrammaticality is ticketed for the violation of Extended Projection Principle (EPP), e.g., *____ was kicked out John by his wife. Because splitting is free and optional, when it does not happen and there is no other principle to rule the sentence out, the sentence is grammatical. Take an unsplit wh-expression for example. In John saw who? the unsplitting of the wh-expression causes the complementary powers of the wh-expression to cancel each other out, leaving a human element to be expressed at the source position; the sentence is nonetheless structurally well-formed.

2.4.4 SPLITTING AND UNSPLITTING IN MANDARIN CHINESE WH-QUESTIONS

Mandarin Chinese does not overtly differentiate the structures of open wh-questions and confirmation wh-questions, but, as discussed in the beginning of this section, speakers signal different speech-acts with distinctive intonations. In contrast to confirmation wh-questions where the sentence-final intonation is raised (↑), open wh-questions are pronounced without raising the sentence-final intonation (↓).

37) 約翰看見誰？

yuēhàn kànjiān shéi?

John saw who

i. (↓) ‘Who did John see?’

ii. (↑) ‘John saw who?’
Corresponding to the distinctive pronunciations are the distinctive LF representations. I propose that in Mandarin Chinese, sentences signaled as open wh-questions undergo covert wh-expression splitting; this operation is purposed to achieve proper scope representation. In contrast, sentences signaled as confirmation wh-questions do not undergo wh-expression splitting, and the reason is simply that wh-expressions in confirmation questions are not scopal.

I consider wh-expression splitting at LF as a type of Quantifier Raising (QR). It is to be distinguished from the overt wh-expression splitting in English. Overt splitting is optional, as stated in Fiengo (2007); it explains the inconsistency of wh-fronting within a language, e.g., multiple wh-questions in English. Well-formed sentence-types without splitting simply have different uses from those with splitting, e.g., open wh-questions versus confirmation wh-questions. Covert splitting is QR. When it occurs, you get the LF of an open question, and when covert QR does not occur, you get the LF of a confirmation question. Splitting is therefore optional in both English and Mandarin. I follow Fiengo et al. (1988) to assume that QR is done via adjunction. Thus, an open wh-question in (37i) has the LF form of (38i) where the wh-expression shéi ('who') is adjoined to CP. The confirmation wh-question in (37ii) does not undergo splitting at LF, shown in (38ii), because its wh-expression does not have scope.

38) i. \[ \text{[CP shéi [CP yuēhàn kànjiàn xì]]} \] (LF: (37i) open wh-question)  
   John saw x

   ii. \[ \text{[CP yuēhàn kànjiàn shéi ]} \] (LF: (37ii) confirmation wh-question)  
   John saw who

Note that the splitting in Mandarin Chinese open wh-questions is different from the LF movement proposed in Huang’s (1982a, b). First, his LF movement is a syntactically motivated operation, triggered by feature-checking, whereas LF splitting is a type of QR. Second, wh-movement creates traces but the splitting of wh-expressions produces variables. Despite the conventional assumption that traces are variables of a particular sort, I think they should be distinguished from each other. Traces are left behind at the originating position as well as all the intermediate positions as byproducts of wh-movement, which, under the umbrella of Move α, cyclically deletes the copied elements and leaves a trail of movement, i.e., traces. On the other hand, a wh-variable is a segment of the
split *wh*-expression, broken apart according to its semantic powers. Hence, according to this definition, a variable is a part of the lexical semantic composition of *wh*-expressions, whereas a trace is the syntactic footprint of movement. Finally, *wh*-movement moves *wh*-expressions into an Ā-position, overtly and/or covertly. The splitting of *wh*-expressions, on the other hand, does not always do so. While the binding segment of an overtly splitting *wh*-expression may make the same stopover and eventually touch down at the same position as what *wh*-movement would, covert splitting, being a type of QR, does not. It adjoins to [Spec, CP].

2.4.5 THE INCOMPLETENESS IN MANDARIN CHINESE *WH*-QUESTIONS

In Mandarin Chinese, the referential incompleteness in *wh*-questions is observed in the LF representations; the incomplete site is where *wh*-variables occur at LF. As shown in (39a), the *wh*-variable resulting from splitting is bound by its fronted *wh*-segment at the adjoined wide-scope position. In contrast, the incompleteness of *confirmation* *wh*-questions is not observable in the LF representation. *Wh*-expressions in *confirmation* *wh*-question are not scopal; they remain unsplit. The incompleteness exhibits itself in speakers’ lack of sufficient belief in the proposition denoted by the sentence.

39) a. [CP [wh, [CP ... x_i ...]]

b. [CP ... wh... ]

Because *wh*-expressions remain unsplit at LF, Weak Crossover is not observed in Mandarin Chinese *confirmation* *wh*-questions. As shown in the contrasting examples below, the sentence uttered with a non-rising sentence-final intonation exhibits Weak Crossover effect, as in (40i), whereas the sentence uttered with a rising sentence-final intonation does not, as in (40ii).

40) 他的媽媽喜歡誰？(↓)/(↑)?

tā de màma xǐhuān shéi?

he DE mother like who

‘Who does his mother likes?’

i. ʃ[i_p shéi [i_p [NP tā de mama] xǐhuān x_i ]] (↓) (Open *wh*-question)
who$_i$  he$_i$  DE  mother  like  x$_i$

ii.  [\text{IP}  who$_i$  de  
  \text{mama}  xihuān  shéi$_i$]  \text{↑}  \quad \text{(Confirmation wh-question)}

he  DE  mother  like  who

2.4.6  \textbf{INDIRECT WH-QUESTIONS}

Indirect questions are a sentence-type where the \textit{split} wh-expression has embedded scope. It is distinguished from \textit{confirmation} wh-questions where the \textit{wh}-expressions have no scope. Because \textit{splitting} creates a binding relation, naturally, indirect \textit{wh}-questions, just like \textit{open} \textit{wh}-questions, exhibit Weak Crossover effect, as shown in the English example in (41) and Mandarin Chinese example in (42).

(41)  7John knows [ who$_i$ his$_i$ brother Loves x$_i$ ].

(42)  約翰知道他$_i$ 的弟弟喜歡誰$_i$。

yuēhàn  zhīdào  tā$_i$  de  dìdì  xīhuān  shéi$_i$

John  know  his$_i$  DE  young.brother  like  who$_i$

‘John knows who his younger brother likes.’ (LF: [\text{CP}  John  knows  [\text{CP}  who$_i$  his$_i$  brother  Loves  x$_i$ ]] )

2.4.6.1  \textbf{Using Indirect WH-QUESTIONS to Ask Confirmation Questions}

Although indirect \textit{wh}-questions, too, have \textit{split} \textit{wh}-expressions, they cannot be used to ask \textit{open} \textit{wh}-questions due to the embedded scope; they can, however, be used to ask \textit{confirmation} questions. When they do, they present speakers as \textit{confirming} the propositions denoted by the whole sentence. A speaker of (43) conveys that he does not have sufficient belief to \textit{assert} that $p$: \textit{Mary remembers where Jane left her umbrella.}

(43)  Mary remembers [ where$_i$ Jane left her umbrella  x$_i$ ].

The \textit{confirmation} questions asked with indirect \textit{wh}-questions should be distinguished from the \textit{confirmation} questions asked with \textit{unsplit} \textit{wh}-sentences. The distinction has to do with scope (or lack thereof). With no scope conveyed, the \textit{unsplit} \textit{wh}-expression’s the complementary powers, i.e., binding and being-bound, are cancelled out, leaving only the other remaining powers to be expressed. In the case of (44), it expresses a \textit{place}, but it does not
refer to the place. Hence, uttering (44) conveys that the speaker does not have sufficient belief to assert the presupposed place. For example, if John tells you that Mary remembers that Jane left her umbrella at the Buckingham Palace, and you have trouble processing the fact that it is the Buckingham Palace, you may ask (44) to confirm if it is indeed the Buckingham Palace.

44) Mary remembers Jane left her umbrella where?

Mandarin Chinese does not have overt wh-expression splitting, so scope distinctions are made solely at LF. As shown in (45i-iv), a Mandarin Chinese sentence with an overtly embedded wh-expression may be used to perform three speech-acts, namely, open wh-question, assertion, and two types of confirmation questions. An open question requires that the wh-expression to split and the binding wh-segment to occupy the wide-scope position, as in (45i). An assertion would also have a split wh-expression but the binding wh-segment has embedded scope, as in (45ii). And depending on what the speaker is confirming — if he is confirming the proposition, then the wh-expression would split, as in (45iii), and if he is confirming the presupposed referent, then the wh-expression would not, as in (45iv).

45) 瑪麗記得約翰買了什麼?

mǎi jì dé yuè hàn mǎi le shénme
Mary remember John buy-ASP what

i. ‘What does Mary remember John bought?’ (↓) (open wh-question: split)
   (LF: [CP what, [CP Mary remember [CP John buy-ASP x1]]])

ii. ‘Mary remember what John bought.’ (↓) (assertion: split)
   (LF: [CP Mary remember [CP what, John buy-ASP x1]])

iii. ‘Mary remember what John bought?’ (↑) (confirmation wh-question; split)
   (LF: [CP Mary remember [CP what, John buy-ASP x1]])

iv. ‘Mary remember John bought what?’ (↑) (confirmation wh-question; unsplit)
   (LF: [CP Mary remember [CP John buy-ASP what]])
2.4.6.2 A Different Kind of Verb Selection

Not all verbs can take indirect questions in their scope, and some even require them. This phenomenon has been attributed to Verb Selection in Huang (1982a, b) where verbs are lexically classified as disallowing, requiring or allowing a WH-feature in its scope. But one does not necessarily need to look for the solution in lexical subcategorizations.

Most important of all, we need to understand what the verb is actually selecting. It turns out that the embedded clauses in grammatical indirect wh-questions are all purposed as individuals. For example, the embedded clause in (46a) denotes the person Bill loved in high school and the embedded clause in (46b) denotes the reason why John lost his job.

   b. Mary remembers why John lost his job.

In other words, only the predicates that are semantically fitting to introduce individuals can tolerate indirect wh-questions. Consider the following two odd-sounding examples. A sentence like (47a) sounds strange because one cannot think an individual. You can think a proposition, and you express it by saying I think that $P$. But you cannot think an individual; that is, you cannot think a proper name John, a rhino, a number zero, or a piece of paper. Think is used to introduce thoughts, and only a proposition can convey thoughts; an individual cannot. Take (47b) for another example. It is equally bad for the same reason. Believe means to regard something as true – only propositions can be true or false, not individuals. Thus, a sentence like (47b) is ruled out because, again, believe cannot semantically introduce individuals. One may argue that we can quite comfortably say I believe you or John believes God, but that is only because the word believe in those cases means trust or having faith in. Those are not the same meanings of believe that rule out (47b).

47) a. *John thinks where Mary is going.
   b. *John believes who Bill loves.
The semantics of verbs determines whether wh-questions can be the complements. Those that introduce individuals can, while those that do not cannot. But how do we explain why some verbs must select wh-questions? I argue it is also due to the semantics of the predicates. The verb wonder is the poster child of this type of verb, which is traditionally assumed to lexically require ‘Q’ in its scope, or otherwise a syntactically ill-formed sentence would be induced. Yet, what is not realized is that the assumed lexical requirement actually has a simple semantic explanation. The individuals introduces by predicates that must take indirect questions are semantically presupposed to be unknown, and one cannot ask a question about something that is not known. Consider the examples below. The people who run for President in 2016 are semantically presented as unknown individuals following the predicate wonder. Thus, you can assert that John wonders about it, as in (48a), but you cannot question who they are, as in (48b). The lack of wide-scope interpretation is a matter of semantics.

48) a. John wonders who will run for the President of the United States in 2016.
   b. *Who, does John wonder, will run for the President of the United States in 2016?

The Verb Selection in terms of the semantics of the predicates can account for examples in Mandarin Chinese too. Reconsider the examples below, repeated from (8 & 9). The wh-expression in (8) cannot have downstairs reading because the predicate 覺得 juéde (‘to think’) can only introduce thoughts, and thus only the wide-scope interpretation is available. And the wh-expression in (9) must have downstairs reading because the predicate 想知道 xiǎng.zhīdào (‘wonder’) introduces an individual that is presupposed to be unknown, which makes wide-scope reading to be unavailable.

8) 约翰觉得比爾煮了什麼?
   yuēhàn juéde bǐěr zhǔ  le  shénme ?
   John think Bill cook-ASP what
   i. ‘What did John think Bill cooked?’
   ii. Intended: ‘*John thought what it was that Bill cooked.’

9) 约翰想知道比爾煮了什麼。
   yuēhàn xiǎng.zhīdào bīěr zhǔ  le  shénme
John wonder Bill cook-ASP what

i. Intended: ‘*What is it that John wonders Bill cooked?’

ii. John wondered what Bill cooked.
CHAPTER III WHAT THE HELL IS WITH DÀODĪ?

Viewing questions as syntactically annotated declarative sentences has led to consequential mistakes, the most prominent being the accounts for the adverb 到底 dàodī (literally, ‘to the bottom; to the end’), whose near exclusive use in questions has been analyzed as requiring licensing by the question feature in Huang & Ochi (2004) and has since been assumed to be the Chinese version of wh-the-hell (Law 2006 & 2008, Chou 2012, Yuan 2013, among others). This account for dàodī has yet to be challenged or questioned, given the presumption that questions and the attitude conveyed through asking them can be explained in structural terms. In this chapter, I re-examine dàodī, and in doing so, demonstrate that my Mandarin Chinese question proposal developed in Chapter two provides a more accurate account.

3.1 WHAT IS DÀODĪ?

The literal translation of the adverb 到底 dàodī is ‘to the bottom’ or ‘to the end’, but it is usually translated as ‘wh-the-hell’ in English when used in questions. While it is unclear why its translation is wh-the-hell, it is not difficult to guess the reasons. First, dàodī and wh-the-hell both commonly occur in questions. Second, questions asked with dàodī and wh-the-hell generally present their speakers as being annoyed, impatient, or, in Huang & Ochi’s (2004) term, with ‘an attitude’, as in (1a & b).

1) a. 他到底買了什麼?

   tā  dàodī  mǎi le  shénme?

   he to.the.bottom buy-PERF  what

______________________________________________________

51 It is incorrectly observed that dàodī can only be used in questions (Huang & Ochi 2004). In fact, dàodī can also be used in assertions:

他到底是一個好人。

   tā  dàodī  shì yī ge  hǎorén.

   he to.the.bottom SHI one CL good.man

   ‘He is, after all, a good person.’

Undoubtedly, it is not common, but it does exist.
'What the hell did he buy?'

b. 到底誰拿走了那本書?

dàodí shéi ná zōu le nà běn shū?
to.the.bottom who take.away.Perf that CL book

‘Who the hell took away that book?’

(Huang & Ochi 2004: (9a&b))

A shortcut to understanding dàodí is to look at the reasons dàodí is viewed as the Chinese version of wh-the-hell. Although I do not consider them as being the same for several reasons, which are elaborated on later, the general consensus seems to be that they are. Particularly, given the traditional assumption that questions are sentences with a question feature, it is not surprising that dàodí and wh-the-hell, which are both thought to appear in questions purported to convey speakers’ impatience and/or annoyance, are treated syntactically on par. Huang & Ochi (2004) propose that both Chinese dàodí and English wh-the-hell (i) are syntactically required to be licensed by a question feature, and (ii) project the ‘Attitude Phrase (annotated as ®P)’ which give the questions containing them a ‘special pragmatic flavor’, e.g., impatience and/or annoyance. They propose a two-step licensing operation which syntactically accounts for (i) and (ii). The first step involves associating dàodí and wh-the-hell with a wh-expression in its c-domain, which is based on their observation that dàodí and wh-the-hell always occur together with a question word. The association is proposed to be realized in different ways between English and Chinese. The former is realized in a ‘continuous’ and ‘synthetic’ single phrase in which the wh-associate is contained, e.g., what the hell or who the hell; the latter, being ‘discontinuous’ and ‘analytic’, forms a synthetic relation termed the ‘Dependency B’, where the wh-associate undergoes covert Ā-movement to adjoin the Attitude Phrase projected by dàodí. The second step is grounded on their observation that dàodí and wh-the-hell always occur in questions. They propose that Chinese dàodí and English wh-the-hell together with their adjoined wh-associate further adjoin the Spec of CP in which C^0 hosts Q, an operation driven by feature-checking. They term

52 Note that ‘Syntax of the Hell: Two Types of Dependencies’ by Huang & Ochi (2004) is officially published in Huang (2010). The original paper, which is presented at the NELS Conference, does not have page numbers and thus I am unable to provide them here.
this step-two licensing operation the ‘Dependency A’. According to them, the only difference between English and Chinese in the Dependency A stage is whether the movement is overt or covert. The proposed two-step licensing operation in Huang & Ochi (2004) is illustrated below. They note that the Ā-movement is constrained by ECP, and thus wh-adjunct cannot cross an island whereas a wh-argument can.

2) The pattern: two dependencies

\[
[CP Q [IP ... [ISLAND ... \text{dàodǐ} ... [ISLAND ... wh-associate ... ]]]]
\]

\*A B

(Huang & Ochi 2004: (21))

Their proposal is a complicated one, and it is loaded with issues.

First, the central tenet of their proposal is the projection of the so-called Attitude Phrase (⊙P), designed to syntactically account for the ‘pragmatic flavor’ associated with the occurrence of dàodǐ and wh-the-hell in questions, e.g., impatience and/or annoyance. How the Attitude Phrase (⊙P) is proposed to host dàodǐ, i.e., in its specifier position, is illustrated below.

3) The Attitude Phrase (⊙P)

(Huang & Ochi 2004: (22))

But what qualifies an expression to occur in the Attitude Phrase? It is unmotivated to project the Attitude Phrase whenever an expression is taken to convey the speaker’s attitude, to say the least. For example, there is no syntactic benefit to project an Attitude Phrase hosting the adverb regrettably in John, regrettably, cannot make it to your birthday party, even though regrettably conveys the speaker’s pragmatic attitude. Moreover, the projection of the Attitude Phrase entails that dàodǐ and wh-the-hell lexically encoded speakers’ feelings, be it
impatience or annoyance, but it sounds quite bizarre, as neither dàodì nor wh-the-hell means whoever utters it is impatient and/or annoyed.

Second, their two-dependency account, in which dàodì and wh-the-hell are required to check-off [+Q], is based on their observation that dàodì and wh-the-hell are always used in questions. The account may work for wh-the-hell because wh-the-hell is, after all, a wh-expression, and it occurs either in a direct question or in an indirect question, and they can always assume that it is c-commanded by Q, as exemplified in (4a & b).

4) a. [CP Q What the hell are you talking about]?

   b. It’s a complete mystery [CP Q what the hell he eats].

But dàodì is a sentential adverb and it can occur in assertions. In fact, as shown in (5a & b), when it is used to qualify assertions, no Q can be reasonably postulated. Therefore, the Dependency A proposed by Huang & Ochi (2004) is not applicable to such sentences.

5) a. 他到底是一個好人。

   tā   dàodì   shì yí ge hǎorén.

   he to.the.bottom SHI one CL good.man

   ‘[Given all that he has done] He is a good person.’

   b. 在最後一分鐘，他到底把文章交出去了。

   zài zuǐhòu yì fěnzhǎng tā   dàodì   bā wénzhāng jiāo chúqù le

   at last one minute he to.the.bottom BA article turn out ASP

   ‘At last minute, he turned in the article [at last].’

At this point, it is clear that Huang & Ochi’s (2004) account cannot properly predict the behaviors of dàodì. The lack of consideration of dàodì’s usage in non-questions may simply be an oversight. Or it might be that the non-questions uses are intentionally left out, because they are not common. In either case, if their account is to succeed, it would force us to have two different dàodì: one carrying a [+wh] that requires checking; the other carrying a [−wh] and not requiring checking. It is, unfortunately, not a desirable situation.
A good account should be able to explain all occurrences of *dàodí*. Taking all the uses of *dàodí* into consideration, a common thread should become clear – when the sentential adverb *dàodí* is used, it presents speakers as presupposing what it qualifies. When *dàodí* occurs in questions, it presents the speaker as *presupposing* the conveyed ignorance. For example, asking a *wh*-question such as (6a), the speaker conveys that his ignorance concerning the identity of the subject is *nothing new*. An A-not-A question with *dàodí* such as (6b) shows that the speaker has been wondering whether the subject will come. A speaker of the disjunctive question with *dàodí* in (6c) presents himself as having been pondering *John likes coffee* or *John likes tea*. And finally, a confirmation *ma*-question makes known that the speaker’s lack of belief in the proposition that *he will come* has been on his (the speaker’s) mind.

6) a. 他到底 是誰?
   tā  dàodí  shì shéi?
   he to. the. bottom SHI who
   ‘Who is he?’

b. 他到底來不來?
   tā  dàodí  lái bù lái?
   he to. the. bottom come-not-come
   ‘Is he coming?’

c. 約翰到底喜歡咖啡還是茶?
   yuēhàn  dàodí  xǐhuān kāfēi háishì chá?
   John to. the. bottom like coffee or tea
   ‘Does John like coffee or tea?’

d. 他到底會來嗎?
   tā  dàodí  huì lái ma?
   he to. the. bottom will come MA
   ‘Will he come?’
And similarly, when dàodǐ is used to qualify an assertion, it presents the speaker as presupposing the proposition p conveyed by the sentence. Let us revisit (5a & b), repeated below. Suppose John donated all his inheritance to charities, and a speaker comments on John’s charitable act with (5a). By using the sentential adverb dàodǐ to qualify an assertion, the speaker presents himself as presupposing the p: John is a good man. And using dàodǐ to qualify the assertion in (5b) presents the speaker as presupposing the p: John turned in the paper at last minute. Because assertions are in general expected to contribute new information, when they are used to convey a presupposed proposition, the speaker present himself as reinforcing or emphasize a point.53

5) a. 他到底是一個好人。

tā dàodǐ shì yī ge hǎorén.

he to.the.bottom SHI one CL good.man

‘He is a good person.’

b. 在最後一分鐘，他到底把文章交出去了。

zài zuìhòu yī fēnzhǒng tā dàodǐ bǎ wénzhāng jiāo chú qù le

at last one minute he to.the.bottom BA article turn out ASP

Why using dàodǐ to qualify a question or assertion indicates that the speaker presupposes the ignorance or proposition conveyed by the sentence? The literal meaning of the sentential adverb dàodǐ, ‘to the bottom’ or ‘to the end’54, suggests a process that exists before ‘the bottom’ or ‘the end’. Thus, depending on what the adverb is used to qualify, questioners use dàodǐ to present themselves as having considered all the possible options before conveying their ignorance, and asserters use dàodǐ to convey that they have gone through a thinking process before contributing the asserted information. And because of that process, the uttered question or assertion is not

53 Fiengo (through personal communication) points out that English also has the expression ‘at the end of the day’. It is not the same as dàodǐ, but perhaps there are similarities. A sentence like At the end of the day, Jack is a conservative, can mean Basically, Jack is a conservative. The question What is Jack at the end of the day? can be used to ask what Jack is basically. The French have ‘au fond’.

54 dàodǐ is composed of two characters. The first character 到 dǎo means ‘to’ or ‘to arrive at’, and the second character 底 dǐ means ‘bottom’ or ‘end line’.
taken as a new contribution that the speaker comes to realize but rather as a presupposed one. By presupposing his own ignorance, the speaker conveys that he has been ignorant for a while, and that explains all the negative attitudes associated with \textit{dàodì} questions, e.g., \textit{impatient}, \textit{annoyed}, \textit{irritated}, etc. The good thing about \textit{not} semantically encoding \textit{impatience}, \textit{annoyance} and \textit{irritation} into \textit{dàodì} is that we can easily explain the lack of negative emotions in \textit{dàodì} assertions. \textit{Impatience, annoyance and irritation} does not arise when a speaker presuppose an \textit{assertion}; he is simply taken as making a point.

To conclude, asking a question with \textit{dàodì} not only presents the speaker as ignorant but also presupposes that he is ignorant. And it is the presupposed ignorance in a \textit{questioning} speech-act that implicates the speaker’s negative attitude, not a structural projection.

3.2 WHAT IS WH-THE-HELL?

To say that \textit{wh-the-hell} is not the English equivalence of Mandarin Chinese’s \textit{到底 dàodì} (‘to the bottom’), one must understand the meaning of \textit{wh-the-hell}. Given the deeply rooted misunderstandings about \textit{wh}-questions, it is not surprising that there has not yet been an adequate account.

3.2.1 THE MYTHS ABOUT WH-THE-HELL

In the following, I review two most prevalent accounts for \textit{wh-the-hell}.

3.2.1.1 PESETSKY (1987): AGGRESSIVELY NON-D-LINKED WH-PHRASE

Pesetsky (1987) argues that \textit{wh-the-hell} is an ‘aggressively non-D(iscourse)-linked \textit{wh}-phrase’. A \textit{wh}-phrase is ‘non-D-linked’ because “the appropriate answer is presumed not to figure in previous discourse” (p.111), and it is ‘aggressive’ because \textit{wh-the-hell} is composed of a non-D-linked \textit{wh}-expression \textit{and} a non-D-linked \textit{the hell}. He claims supporting syntactic evidence to the D-linked versus non-D-linked distinctions, which I return to later, but he offers no explanation as to why \textit{the hell} is non-D-linked – it is simply assumed as such. While it may be a trivial fact, it should be noted that \textit{the hell} by itself does not possess the characteristic of his claimed non-D-linkedness, i.e., obligatory LF movement.
Pesetsky (1987) proposes that wh-expressions that are non-D-linked, i.e., wh-expressions whose felicitous answers are not limited by what the speaker and the hearer have in mind, are quantifiers whose LF movement to an Â-position is obligatory when overtly in-situ and thus abiding by rules of movement, e.g., Superiority Condition and Nested Dependency Condition. In contrast, wh-expressions that are D-linked are ones whose answers are limited by what the speaker and the hearer have in mind; they are not quantifiers and thus their scope is obtained through unselective binding without involving LF movement. This distinction, according to Pesetsky (1987), is supported by the syntactic evidence that in-situ non-D-linked wh-expressions observe Superiority Condition and Nested Dependency Condition, whereas in-situ D-linked wh-expressions escape them. Hence, the following contrast explained by Pesetsky’s (1987) account would be: who and what in (7a) are ‘non-D-linked’ and thus they move at LF; the unacceptability is caused by the LF movement that contravenes Nested Dependency Condition, i.e., the wh-trace dependencies are crossed. The which-phrases in (7b) are D-linked and thus their scope is unselectively bound by the Q-morpheme, and since there is no movement, there is no movement related violation.

7) a. ??Who did you convince t_i to see what?
   a’. ??LF: [who_i [what_j you convince t_i to see t_j]]
   b. Which man_k did you convince t_i to see which movie?
   b’. LF: [Q_m which man_k you convince t_i to see which movie_m]

While the structural contrasts are correctly observed in Pesetsky (1987), the facts about D-linking are, as pointed out by Fiengo (2007), mischaracterized. Fiengo (2007) thinks the “quite specific and overly technical proposals” can actually be explained as “a very general and quite humble conversational principle at work”, which simply says “you should not say something unless you think that the person you are talking to will know what you are talking about” (p.97). He points out that there are many reasons that we know what others are talking about when a wh-question is asked and they do not necessarily involve using D-linked expressions, i.e., expressions presume aforementioned discussions. The thing that we know others are talking about may be one-of-a-kind or it may be in front of our face, or, quite possibly, it is known because we know those people very well. The difference between which and the other wh-expressions is not whether or not they are linked to discourse. Take (8a & b) for example. Suppose you, as John’s best friend, know each and every girl John has dated, and one day John phones to
tell you that he is getting married. Given the fact that you know every girl John has dated and John knows that too, and given that we conventionally presume that the person we marry is the person we have dated, asking both a who-question or a which-girl-question, as in (8a & b), can noncontroversially present us as presuming that he is marrying one of the girls that we know he has been seeing. Based on Pesetsky’s (1987) prediction, however, only the which-girl-question in (8b) should be allowed. His syntactic account is clearly insufficient.

8) a. (So…) Who are you marrying?
     b. (So…) Which girl are you marrying?

One may argue that Pesetsky’s (1987) distinction between which and other wh-expressions holds true if the context is not so particular, i.e., you are not John’s best friend; in that case, the non-D-linked who in (8a) cannot be used because the answer cannot be drawn from a presumed answer set by both speakers and hearers. This is a misguided argument. Although the distinctions between which and other wh-expressions do exist, it is not due to whether or not the wh-expressions lexically encode that their speakers and hearers have a presumed answer set. If it were the case, then it would entail that, when a which-question such as (8b) is uttered in a discourse where the speaker and the hearer do not share a presumed answer set, (8b) would be ungrammatical. But it is not ungrammatical; it simply does not sound right. Furthermore, Fiengo (2007) points out that the licensing requirement of which suggests that all other wh-expressions, i.e., the non-D-linked ones, in contrast, do not need to be licensed by the presumed information, but if, out of the blue, someone asks you Who is smart? or What student is smart? or How many students are smart?, these questions are as bad as a D-linked which-question Which student is smart? Contradicting Pesetsky’s (1987) D-linking predictions, non-D-linked wh-expressions cannot always be used without pretext.

Fiengo (2007) offers a much more simpler and better account. To briefly introduce Fiengo’s (2007) proposal without going into the details, which and what parallel each and every in terms of ‘manners’ – which and each ‘individualize’ the items of concern, and what and every ‘totalize’ them, and speakers choose wh-expressions that most appropriately represent the item of their concern in the utterances. When individualizing, the truth is determined by picking out an item in U, determining if it is what we are looking for, and repeating this procedure
until we exhaust all the items in U. When totalizing, the truth is determined by looking at the totality of the items of our concern in U and if all of them are what we are looking for, then the truth is granted. ‘Manners’ explain a lot of phenomenon that cannot be explained in syntax. For example, as exemplified in Fiengo (2007), What reason do you have for thinking that? sounds more natural than Which reason do you have for thinking that? because the prospect of reasons in these sentences are undiscriminated, or in fact, unable to be discriminated at all; the appropriateness of the what-question as conceived here is due to the totalizing manner of what and the inappropriateness of the which-question is due to the individualizing manner of which. On the other hand, he continues, Which knight is pinned? is preferable to What knight is pinned? because when the possibilities are small, individual items are of higher concern; hence, individualizing which is favored above the totalizing what. In addition to their difference in terms of manners, Fiengo (2007) points out that which and what also differ by the sentence structure in which they appear. Salient or not, which is always followed by a noun; what, on the other hand, is not.

Now let us revisit the opposing argument that D-linking explains why the D-linked (8b) cannot be used while the non-D-linked (8a) can if no one is anyone’s best friend. The explanation is simple. I think both can still be used. The only difference is that if you do not know John’s dating history and John knows that too, your asking the which-question (8b) would either confuse John or mislead John to think that you know who he has been dating. The individualizing manner of which presents you as intending to find out the truth through examining each and every girl that John has been dating; hence, by choosing this wh-expression, you presuppose your knowledge of John’s ex-girlfriends, which you do not have. The problem does not arise from syntax.

Now let us return to the contrast between (7a & b). What makes them of interest is not why one allows crossing but the other does not. Fiengo (2007) points out that considering that questions such as What did who see where? and Where did who see what? are both grammatical, what renders questions like What did who see? odd cannot be a syntactic violation. He argues that the overarching principle of wh-questions is that “overt syntactic

55 If girl is not pronounced, the sentence structure would be [which Ø [you ended up marrying ___ ]]

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structures and covert logical structures are in one-to-one correspondence \(^{56}\) (p.136), and when two overtly structurally distinctive sentences with the same logical structure are competing, the structurally simpler one is preferred. Consider the two examples in (9a & b), exemplified in Fiengo (2007). They share the same logical structure; both \(wh\)-expressions are wide-scope. (10a) is preferred because the unmarked structure is simpler.

9) Logical structure: \(<\{Wx: \text{person } x, Ty: \text{thing } y\}, <x, <\text{saw, } y>>\>

   a. ‘Who saw what?

   b. What did who see?

In contrast, \(which\)-questions such as (10a & b) do not have the same logical structure. The corresponding answers to (10a) is an ordered pair of \(<l(\text{individualized}) \text{ man } x, l(\text{individualized}) \text{ movie } y>, \) and (10b) is an ordered pair of \(<l(\text{individualized}) \text{ movie } y, l(\text{individualized}) \text{ man } x>\). They each present speakers with a unique perspective. They are used to ask different questions and hence there is no preference.

10) a. Which man saw which movie?

    \(<<which \ lx: \text{man } x, which \ ly: \text{movie } y>, <x, <\text{saw, } y>>\>

    b. Which movie did which man see?

    \(<<which \ ly: \text{movie } y, which \ lx: \text{man } x>, <x, <\text{saw, } y>>\>

The story of the contrast in (7a & b) can therefore be told without stipulating \(D\)-linking – (7a) is not preferred because the non-crossing version of it can already deliver the same logical structure; (7b) is fine because it offers a distinctive logical structure comparing to the crossing counterpart. \(D\)-linking (or non-\(D\)-linking) incorrectly characterize \(wh\)-expressions. It is not a real syntactic property. The peculiarities exhibited in \(wh\)-the-hell therefore cannot be explained by it.

\(^{56}\)Fiengo (2007) notes that it is not clear whether this principle can be extended to languages without \(wh\)-fronting.
3.2.1.2 Den Dikken & Giannakidou (2002): A polarity item

Based on Pesetsky’s (1987) D-linking proposal, Den Dikken & Giannakidou (2002) take a step further to argue that the ‘aggressively non-D-linked’ wh-the-hell phrases are polarity items (PIs). Four pieces of ‘supporting evidence’ are offered: (i) wh-the-hell, just like some PIs, ‘license’ negative answers, (ii) the distribution of wh-the-hell and PIs in the complement of veridical predicates overlaps, (iii) the lack of pair-list reading in multiple wh-questions containing wh-the-hell can be explained if wh-the-hell is a PI, and (iv) when occurring together with a quantifier, wh-the-hell must have the wider scope. In the following, I examine each of their claimed evidence and proposal, and I explain how they are flawed.

Negative answers with modals

Den Dikken & Giannakidou (2002) argues that wh-the-hell is analogous to negative polarity items (NPIs) such as give a damn, sleep a wink, lift a finger, and any in that they all license negative answers when used together with modals.

For example, according to their analysis, a wh-the-hell question such as (11b) “is compatible only with the negative rhetorical answer” (p.32), while the regular wh-question (11a) is ‘an information question’ with a less salient negative rhetorical question reading.

11) a. Who would buy that book?
    b. Who the hell would buy that book?

(Den Dikken & Giannakidou 2002: (2))

They point out that this peculiarity runs parallel to negative polarity items (NPIs). Sentences with NPIs occurring together with modals, as in (12) and (13a), require negative answers, in contrast to (13a) without NPI.

12) Who could sleep a wink with that racket?

(Den Dikken & Giannakidou 2002: (3))

13) a. Which student read any of the papers?
b. Which student **would** read any of the papers?

(Den Dikken & Ginnakidou 2002: (4))

Their interpretation of the above-mentioned observation is premised on the belief that (negative) answers can be licensed through grammar, specifically, semantics. They go into lengthy discussion on how negative answers are licensed when *wh*-the-hell occurs in a modal environment. To briefly summarize, they argue that *wh*-the-hell, being aggressively non-D-linked, possesses a semantic property ‘domain extension’\(^57\), which “extends the domain of quantification to include familiar and novel values” (p.43). In addition, they argue that *the-hell* “conveys a presupposition that the speaker has a negative attitude toward the value of *wh*-the-hell and the propositional content of the *wh*-question” (p.43). Together, the non-D-linked *wh*-expression and *the-hell* contributes a negative presupposition that says: “if any x such as x did what is expressed by the VP, then x should not have done it” (p.43). So for a question such as (14), “the speaker presupposes that if indeed somebody has talked to Ariadne, that should not have happened, because Ariadne was not supposed to be talked to: she was punished, for instance, and nobody was supposed to talk to her” (p.43).

14) Who the hell talked to Ariadne?

(Den Dikken & Ginnakidou 2002: (36))

The account is very specific, but it is not accurate. Suppose you and your friends are looking at the sky at night and you see a floating, shimmering object. You are excited about your discovery, and you shout a sentence such as (15). According to Den Dikken & Ginnakidou’s (2002) account, your utterance presupposes that if the object you see does exist, it should not have existed, because that shimmering, floating object is not supposed to appear in the sky. But it is quite odd. If it is your first time seeing this object, how do you know if it is supposed or not supposed to appear in the sky? Seeing something for the first time does not naturally follow that this *something* is not supposed to happen. Life is full of first time experience, and those who jump into the type of presuppositional conclusion Den Dikken & Ginnakidou’s (2002) propose may quite frequently feel disappointed at life.

\(^{57}\) This ‘domain extension’ property is peculiar to non-D-linked *wh*-expressions, as D-linked *wh*-expressions, which, according to them, ‘presuppositional’, only pick up their values from the previous discourse.
15) What the hell is that in the sky? An UFO?

Going back to their original observation that *wh-the-hell* with modals licenses negative answers. They treat these types of questions as presupposing negative answers, and that, to them, means the denotation of such questions “is a singleton set containing just the negative proposition” (p. 44). Given their assumption that the modal *would* introduces a set of possible worlds, i.e., the modal base *K*, and *would* is an universal quantifier because it conveys ‘necessity’, they argue that when the ‘negative attitude’ presupposing *wh-the-hell* is used together with it, “the negative presupposition must hold in all worlds in the modal base *K*” (p. 44). So for a sentence such as (11b), repeated below, “we end up with a situation where in no world *w* would anybody buy that book, which is precisely the negative rhetorical reading we have observed” (p.44).

11) b. Who the hell would buy that book?

But if what makes a *wh-the-hell* question presuppose a negative answer is the negative-answer-presupposing *the-hell*, as suggested by Den Dikken & Ginnakidou (2002), then one would expect that a *wh*-question without *the-hell* would not presuppose a negative answer, as in (11a), repeated below. The fact that a regular *wh*-question can, in fact, ‘presuppose a negative answer’ indicates that the negative answer may not be projected from *the-hell*.

11) a. Who would buy that book?

Furthermore, if *wh-the-hell* questions do lexically presuppose negative answers, then one would expect a sentence such as (16) to be unacceptable, but this is not the case. The negative presupposition seems to be cancellable.


And finally, *open* questions simply *cannot* require or presuppose their answers, because those who present themselves as not knowing what the answer is cannot at the same time presuppose what the answer is. The misunderstanding that *wh-the-hell* licenses negative answers in Den Dikken & Ginnakidou (2002) seem to be tied up with Pesetsky’s (1987 & 2000) mistake of assuming *wh-the-hell* questions are rhetorical questions when they are, in fact, not.
**WH-the-hell in the Complement of Veridical Predicates**

Den Dikken & Ginnakidou (2002) argue that polarity items (PIs) and *wh-the-hell* occurring in the complement of veridical predicates exhibit paralleled distribution patterns. Neither of them can grammatically occur there:

17) a. *I know who the hell* would buy that book.

   b. *John knew that Martha bought any* book.

   (Den Dikken & Ginnakidou 2002: (5b) & (9a))

And if they do, the matrix predicate must be a negated one:

18) a. *I don’t know who the hell* would buy that book.

   b. John *didn’t know that Martha bought any* book.

   (Den Dikken & Ginnakidou 2002: (6a) & (9b))

They further illustrate that *wh-the-hell* is licensed in other environment where PIs are licensed, such as “the complement of interrogative and directive verbs like wonder and would like, complements of negative verbs like refuse, the scope of only and negative quantifiers like nobody, and the protasis of conditionals” (p.34).

19) a. I am wondering/would like to know *who the hell* bought that book.

   b. I am wondering/would like to know if *anyone* bought that book.

20) a. John refused to tell me *who the hell* had bought that book.

   b. John refused to tell me if *anyone* had bought that book.

21) a. Only John knows *who the hell* wrote this secret report.

   b. Only John knows whether *anyone* is aware of this secret report.

22) a. Nobody knows *who the hell* wrote this secret report.

   b. Nobody knows whether *anyone* is aware of this secret report.

23) a. If John knows *who the hell* wrote this secret report, he should tell us now.

   b. If you see *anybody*, let me know.

   (Den Dikken & Ginnakidou 2002: (11-15))
The parallelism observed in Den Dikken & Ginnakidou (2002) does not necessarily point to the direction that *wh*-the-hell and PIs are the same thing. For the current purpose, I should only point out that the parallelism argued in Den Dikken & Ginnakidou (2002) is at the expense of an important detail. The *wh*-the-hell expressions illustrated in their examples denote referents *known or not known* to the subject. But the PIs, *any* and *anybody*, are different. *Any* is an adjective and *anybody* is a noun, and in their illustrated sentences, neither *any* nor *anybody* has direct relation to the matrix predicate *know*. They are not the complement of the predicate *know*; rather, they belong to part of the larger clause that is the complement of *know*, as shown in (24a-c).

24) a. ...know [CP who-the-hell ... ]  
    b. ...know [CP Ø [c that [IP ...any book...]]  
    c. ...know [CP Ø [c if [IP ...anyone...]]

Moreover, the ‘observed’ parallels between *wh*-the-hell and PIs illustrated in (19-23), in fact, also hold between regular *wh*-expressions and PIs. They are not contrasts particular to *wh*-the-hell and PIs. Not strong evidence. And most important of all, unlike what Den Dikken & Ginnakidou (2002) observes, *wh*-the-hell *can* be licensed by positive veridical predicates, as shown in (25a-d), countering to their licensing account.

25) a. I will know by then **who the hell** bought that book.  
    b. I would have known **who the hell** bought that book.  
    c. Who knows **who the hell** bought that book.  
    d. Reporter: We have interviewed 15 people but no one knows **who the hell** bought that book.  
       You: Why don’t you ask me? I know **who the hell** bought that book.

**The unavailability of pari-listing readings**

Den Dikken & Ginnakidou (2002) argue that the lack of pair-list readings for *wh*-the-hell in multiple *wh*-questions, in contrast with other *wh*-expressions in multiple *wh*-questions, evidence on the PI status of *wh*-the-hell. They provide two sets of contrasts. First, they observe that in multiple *wh*-questions, *wh*-the-hell, such as one in (26b),
can only have single-pair list, echo-question reading, whereas the regular wh-expressions, such as who in (26a), can have both single-pair echo or pair-list reading.

26) a. Who is in love with who?
   
   b. (?) Who the hell is in love with who?

   (Den Dikken & Ginnakidou 2002: (16))

The second contrast is between wh-the-hell in the root position and wh-the-hell in the embedded position – the former, such as one in (27a), only have single-pair, echo question reading; the latter, such as one in (27b), is not a question. Again, this contrast can be accounted for if, according to them, wh-the-hell is a PI.

27) a. (?) Who the hell is in love with who?
   
   b. I [am wondering/would like to know] who the hell is in love with who.

   (Den Dikken & Ginnakidou 2002: (64a & b))

The contrasts observed in Den Dikken & Ginnakidou (2002), however, is based on two misguided assumptions. First, they assume multiple wh-questions that can potentially be answered with one or more pairs of answers are in contrast with questions that can only be answered with one pair of answers, and they argue that the contrast is syntax. What they fail to realize is that the number of answer-pairs do not tell us much of anything. Open multiple wh-questions may have single-pair or pair-list readings; confirmation wh-questions do not have either at all – they are either confirmed or denied. So basically, the contrasts they observe are questions of the same type used for different purpose. Suppose I am very puzzled by the complicated relationships depicted on the TV show Friends, and I ask Who is dating who? Being completely innocent and clueless, I do not ask the question with an assumed

58 Since Den Dikken & Ginnakidou (2002) do not consider confirmation questions as ‘real’ questions, they mark them with ‘?’.

59 Suppose I am watching Friends and it is showing that Rachel is (sort of) dating Joe, an impossible choice. I cannot believe what I am seeing so I yell out loud: OMG! Who is dating who (now)!! And if my friends sitting next to me understand that I am confirming what I am seeing – most likely they know, given that the TV is playing in front of us – they may confirm my confirmation question by saying Yes, Rachel is dating Joe. Unbelievable, right? In this case, there is no pair-list answer, only confirmation.
reading, i.e., single-pair or pair-list. One may argue that it means this question can have single-pair or pair-list
reading. But consider this other case. Suppose you are watching Friends and I join you in the middle of the show.
What I see is that, among the 6 characters in the show, only two guys and one girl are single at that moment. I ask
the same question as one in the previous scenario: Who is dating who? Given the facts and the norm, my open
question does seem to have the single-pair reading. But in either case, it is not syntax that determines the reading;
it is the specific context in which the calculation of the utterance is done. Syntax does not determine the reading.
The second problem is that Den Dikken & Ginnakidou’s (2002) promptly assume that a question with a single pair-
list reading is an echo question, and, based on the standard definition of echo questions, that wh-expressions in
the multiple wh-questions with single-pair reading stay in situ. It is another misunderstanding. Given the fact that,
as I have demonstrated earlier, open multiple wh-questions can have single-pair readings, wh-in-situ cannot and
should not be deduced from having single-pair readings. On top of that, their example Who the hell is in love with
who? is not an echo question. The echo questions we are familiar with are the ones that, as best defined in
Fiengo (2007), ask “that you produce a bit of language, a repetition of the bit of language that I did not hear” (p.
76). Suppose we are in a noisy bar and I say to you I am in love with (mumble). Failing to catch the word that
expresses the person the speaker loves, you ask an un-inverted echo question You are in love with who? The
conveyed ignorance is about ‘the bit of language’ that I miss rather than the actual person in the world that you do
not know, a point due to Fiengo (2007). Now, if you instead ask the inverted wh-question: Who (the hell) are you
in love with? you present yourself quite differently. The conveyed ignorance is not the missed word but about the
actual person in the world. The reason is simple: a split wh-expression denotes items in the world; an unsplit one
denotes item in its occurring position. Den Dikken & Ginnakidou’s (2002) example: Who the hell is in love with who?
is not an echo question; we do not use who the hell to ask ‘the bit of language’. And the wh-the-hell expressions
simply cannot remain unsplit (or stay in situ), and thus the questions asked with them must be open. It is

60 As pointed out by Fiengo (2007), the term echo questions have been loosely used to refer to questions with
in-situ wh-expressions, but it is inappropriate, since sentences with in-situ wh-expressions can be used to perform
other different speech-acts, such as to confirm. Hence, he terms questions that seek ‘the bit of language’ as repeat
question, so as to avoid confusion between the true echo questions and other types of questions.
straightforwardly impossible to ask an open *wh*-question using *unsplit* *wh*-expressions, as they suggest (review to follow).

Despite the misguided observations, which render Den Dikken & Ginnakidou’s (2002) consequent accounts problematic, it is nevertheless important for us to understand what they propose. It helps us to understand the importance of correctly understand *questions*. What they propose regarding the two pair of ‘contrasts’ above, basically, is that the position where *wh*-the-hell occurs in root multiple *wh*-questions is affected by its PI status, and being at this position, that is, [Spec, CP], disallows *wh*-the-hell from being licensed by the Q-operator in C₀, which consequently results in *wh*-the-hell in a root multiple *wh*-question becoming a ‘non real question’, i.e., having single-pair reading and being an *echo* question. As readers may have already noted, Den Dikken & Ginnakidou (2002) have a very different (or rather, traditional) approach in defining *questions* than I do in this paper. To illustrate their argument, I need to begin from the core of their belief.

Their view of *questions* originates from Katz & Postal (1964). Den Dikken & Ginnakidou (2002) view ‘real questions’ – by being ‘real’, they mean *questions* that have more than one reading – as sentences structurally harboring a Q-operator, which type-shift a proposition into a set of propositions. Morphologically realized or not, the Q-operator is a licenser; without it or without being licensed by it, the question is not ‘real’. So, as odd as it may sound, by this definition, *confirmation* questions and *echo* questions are not ‘real’ questions, despite the fact that they are used to ask *questions*. Now, premised on the stipulation that the three stipulated projections in the functional domain are ranked in the following order: CP > Top(ic)P > Foc(us)P, they propose that, while Q-operator universally resides at C₀, languages differentiate in terms of where *wh*-expressions in ‘real’ questions land, and that in English, they propose it to be the Specifier of Focus ([Spec, FocP])⁶¹. And because [Spec, FocP] is lower than C₀ in

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⁶¹ It is based on Pesetsky’s (1989) observation that the topic surfaces to the left of the *wh*-expression in root questions, while the *wh*-expression precedes the topic in embedded sentence. For example, it is presumed that a *book like this* is the topic, and it is to the left of *why* in (i), and to the right of *why* in (ii). He postulates that the position of the topic is constant.

(i) A *book like this*, why should I buy?
(ii) Bill doesn’t know why a *book like this*, he should buy.
structure where the Q-operator is harbored, a wh-expression at [Spec, FocP] can be licensed by the Q-operator via c-command.

Having set the stage, now let us look at their account for (26b)/(27a) Who the hell is in love with who? They argue that the lack of ‘real’ question interpretation, i.e., lacking pair-list reading, is due to the PI status of wh-the-hell 62. The reason is that, after the object wh-expression who takes up [Spec, FocP], there are only two remaining positions for the wh-the-hell expression: [Spec, CP] and [Spec, TopP]. And because PIs cannot be topics, wh-the-hell is forced to land in [Spec, CP], which is higher than the Q-operator in C0 and thus cannot be licensed by Q. The result, therefore, is that (26b)/(27a) cannot have ‘real’ question interpretation, and the structure is rendered ill-formed, as shown in the LF presentation in (28a). For the same reason, Den Dikken & Ginnakidou (2002) argues that the wh-the-hell in (28b) also lands in [Spec, CP], which disallows it from being licensed by Q but, unlike its counterpart in (26b)/(27a), it can be licensed by the matrix predicate and thus the structure is well-formed. The LF presentation is shown in (28b).

28) a. *[CP [who the hell], C0 [FocP [with who], [IP t_i is in love t_j]]]

   b. [I am wondering [CP [who the hell], C0 [FocP [with who], [IP t_i is in love t_j]]]

   (Den Dikken & Ginnakidou 2002: 65)

It is quite unclear, however, why the object who must be licensed in the Focus projection. If we allow who-the-hell to be licensed in [Spec, FocP] instead, then the ungrammaticality shown in (28a) could be remedied, because who would not be forced to land in [Spec, CP] because it is not a PI, and both wh-expressions can be licensed by the Q-operator in C0. As shown in (29), it would allow (26b)/(27a) to be a ‘real’ question.

29) [CP C0 [TopP [with who], [FocP who the hell], [t_i is in love t_j]]]]]

62 Fiengo (via personal communication) points out that one can still ask Who the hell is in love with who? when he is confused about the pairing. He disagrees with Den Dikken & Ginnakidou’s (2002) facts.
To account for the single-pair reading of (26b)/(27a), Den Dikken & Ginnakidou (2002) argues that the Q-operator is not present in echo questions. To support their argument, they demonstrate that the NPI anything cannot be licensed in an echo question, such as below:

30) *John said anything to who?

(ِDen Dikken & Ginnakidou 2002: (67))

And to account for the interrogativity of in-situ wh-expressions in an echo question such as (26b)/(27a), they propose that ‘echo wh-expressions’ morphologically host a Q-morpheme, and they assume the morphological and syntactic complexity makes the deeply buried [+wh] feature ‘unattractable from C’, as illustrated in (31a & b). However, should their proposal be true, we would be left in an undesirable situation where there are two wh-expressions: one inherently carries a Q-morpheme and the other needs to be licensed by Q.

31) a. John said something to who?
   b. [\(_p\) John said something to [who +Q]]

(ِDen Dikken & Ginnakidou 2002: (66) & (68))

Given Den Dikken & Ginnakidou’s (2002) account for echo wh-questions, the single-pair reading in (26b)/(27a) is hence explained as such: the occurrence of the PI who-the-hell suggests that there is a Q-operator in C0. It licenses the who-the-hell in [Spec, FocP]. And because the object who is morphologically embedded with a Q-morpheme, it does not need to be licensed by the Q in C0 and thus stays in situ. At LF, however, it adjoins to the who-the-hell in [Spec, FocP]. Together, these two wh-expressions form a paired wh-expression at LF, as shown in (32).

32) \([CP C_O [FocP [[who the hell]], [with who +Q]] _p \text{ is in love with } t_i]]\)

(ِDen Dikken & Ginnakidou 2002: (70))

But the question is, given the assumption within their framework that movement is always motivated, it is unclear what motivates the object who, which hosts its own Q, to adjoin to the subject who-the-hell at [Spec, FocP] at LF. In addition, it is unclear why this structure must produce single-pair reading, especially given that both wh-
expressions are properly licensed, either by the Q-operator or by its own inherent Q, like their pair-list reading wh-question counterparts.

**Interaction with Quantifiers**

Den Dikken & Ginnakidou (2002), citing Lee’s (1994) observation that wh-the-hell must have the wider-scope with respect to quantifiers, argue that it is attributed to the Intervention Effect (Linebarger 1987) pertaining to PIs. For example, the regular wh-expression question in (34) has two readings: *what is the thing that everyone bought for Max* and *what did each person buy for Max*, but the wh-the-hell question in (35) only has one, as shown in (35a): *what is the thing that everyone bought for Max*. They argue that the Intervention Effect explains the licensing failure from the Q-operator at C₀ to what-the-hell; it is caused by the intervening scope-bearing element *everyone*, as shown in (35b).

34) **What** did everyone buy for Max?

(Den Dikken & Ginnakidou 2002: (74))

35) **What the hell** did everyone buy for Max?

a. [Q ... [what the hell ... [everyone ...]]]

b. *[Q ... [everyone ... [what the hell ...]]]

(Den Dikken & Ginnakidou 2002: (19a & b))

But wh-the-hell does not always have the wider-scope reading with respect to quantifiers. Suppose the hallway of your apartment is full of all sorts of cooking odors. Asking (36a) does not presuppose that everyone is cooking the same thing. Similarly, when your phone calls keep going into your friends’ voicemail, your asking (36b) does not presuppose that all your friends are doing the same thing either.

36) a. **What the hell** is everyone cooking?

b. **What the hell** is everybody doing? No one picked up my call.

Or: Damn it, I want to know what the hell each person is cooking!
Moreover, the ‘intervening element’ does not need to be a ‘scope bearer’ to give wh-the-hell an unambiguous wide-scope reading. As shown below, uttering (37a) conveys that Mr. and Mrs. Smith together brought something to the party, and uttering (37b) expresses that the addressees are going to the same place. Mr. and Mrs. Smith is not a ‘scope bearer’; neither is the pronoun you.

37)  a.  What the hell did Mr. and Mrs. Smith bring to that party?
    b.  Where the hell are you guys going?

Furthermore, the Intervention Effect does not seem to predicate the quantifier some. For example, Den Dikken & Ginnakidou (2002) illustrates that the Intervention Effect takes place when the PI a red cent failing to be licensed by the negation due to the intervening scope-bearing element every charity.

38)  a.  *John didn’t give every charity a red cent.
    b.  *[Neg ... [every charity ... [a red cent... ]]]

(Den Dikken & Ginnakidou 2002: (72b) & (73b))

But, suppose that John’s charitable behaviors are unpredictable. Sometimes he gives a large sum to some organizations but other times he refuses to give anything to some. The supposed ‘intervention effect’ is not present when (39a) is uttered. A comparison can be drawn between (38b) and (39b).

39)  a.  John didn’t give some charity a red cent.
    b.  ✓ [Neg ... [some charity ... [a red cent ... ]]]

Wh-the-hell does not need to be a PI to explain the relatively wider-scope of wh-the-hell with respect to quantifiers, if it can at all.

3.2.2  THE REAL WH-THE-HELL

There are two important clues that give us insights into what wh-the-hell really is.

First, wh-the-hell is not compatible with which, an individualizing wh-expression. Fiengo (2002) argues that this peculiar distribution of the-hell indicates that the-hell is a Totalizing intensifier. As explained by Fiengo (2002),
because the *the-hell* in (40a), for example, is a *Totalizing* intensifier, which “serves to emphasize the totality in point is completely inclusive, lacking no potential member... and if a totality loses a member, it is no longer a totality, *the-hell* serves to emphasize that the totality *is* a totality” (p.99), it (*the-hell*) makes the *wh*-question particularly useful when the speaker intends to emphasize that the color used to paint the house is from the totality of an absurd range of colors; conversely, if the range of colors at point is not out of ordinary, we would ask a *what* question sans the *Totalizing* emphasis from *the-hell*. And because *the-hell* is a *Totalizing* intensifier, it is incompatible with *individualizing which* questions, such as (40b), where no totality is in point.

40) a. What the hell color did you paint your house?
   
b. *Which the hell color did you paint your house?*

Adapted from Fiengo (2002, p. 99)

Further supporting evidence shows that *the-hell* is also incompatible with *how many*, as shown below. As Fiengo (2007) argues, because *how-many* questions are *Individualizing* – they ask for a particular number – they are, naturally, incompatible with the *Totalizing* intensifier *the-hell*. He also points out his account offers a simple explanation that the D-linking account fails to offer. The D-linking account requires that the non-D-linked *the-hell* be barred from occurring in D-linked contexts, which should follow that *the-hell* is allowed in all non-D-linked environment. Yet, as a non-D-linked *wh*-expression, *how many* is unexpectedly incompatible with *the-hell*. The inadequacy of the D-linking account is hard to dispute.

41) a. *How many the hell angels can dance on the head of a pin?*
   
b. *How the hell many angels can dance on the head of a pin?*

Second, in terms of structure, *wh-the-hell* must split; *wh-the-hell* questions cannot be used to perform speech-acts that require uninverted sentence-structure, such as *confirmation* questions or *repeat* questions. I consider this structural requirement as coming naturally from *the-hell* being an intensifier. An intensifier functions to emphasize whatever forces and powers the expression it intensifies carry, and for a *Totalizing* *wh*-expression, it includes the power to bind and the power to be bound. As a result, being accessorized with an intensifier makes an *unsplit* *wh*-expression unacceptable, because it would leave nothing to intensify.
42) a. **What the hell**, did John see it?

43) b. *John saw what the hell?*

So why do *wh*-the-hell questions exhibit rhetorical effects? Being loaded with an intensifier, the *wh*-the-hell expression intensifies whatever forces and powers the bare *wh*-expression carries. The additional *intensifying* effort does not convey that the speaker is extra ignorant – there is no degree of ignorance – but signals the referent the speaker is ignorant about is something unusual. For example, if you see something you do not know, you ask an open question *What is that?* But if you ask *What the hell is that?* not only do you convey that you do not know what that thing is but also think that the thing is out of ordinary. A speaker’s choice of the *hell* hence presents him as viewing the referent as from the totality of a group of unusual individuals; in other words, using the *hell* indicates that the speaker does not think what the *wh*-expression denotes is normal. For example, if this item is what your boss is wearing, it may implicate its oddity; if it is something you have never seen, it could implicate surprise or excitement; if it is what your student writes in his term paper, it usually implicates your dissatisfaction; if it is about the person who is willing to buy a particular book, it implicates that you do not think anyone would want to buy that book. The point I am making is that the *hell* itself does not semantically encode *oddity, surprises, excitement, dissatisfactions*, or ‘negativity’. It is the speech-act of using it (*wh*-the-hell) that brings out the rhetorical effect we observe. As Fiengo (2007) states, “the range of items from which the answer is to be selected is maximally large and perhaps limitless... *wh*-the-hell questions suit themselves to a certain sarcastic effect...and they lend themselves to being asked rhetorically” (p 79).

Harboring the intensifier the-*hell* sets a certain restrictions on the use of *wh*-the-hell clauses as complements. In addition to the general restriction that an embedded *wh*-expression must be introduced by the matrix predicate as a referent, as discussed in Section 2.4, I propose that the intensified *wh*-expression, namely, *wh*-the-hell, is acceptable in the complement clause only when it is introduced by the matrix predicate as a referent to which the speaker does not assert that the subject has knowledge of at the time of utterance. As shown in (44a-e), *wh*-the-hell does not need to be licensed by a negation in the matrix predicate, contrary to what Den Dikken & Ginnakidou (2002) observe, so long as the matrix predicate does not lexically presuppose the subject’s knowledge of the referent denoted by the embedded *wh*-the-hell expression. The reason is straightforward. When a speaker
chooses wh-the-hell instead of a regular wh-expression, he signals that what is denoted by the intensified wh-expression is something unusual, and when it is introduced by a veridical predicate, the unusualness is presented as not being able to be verified by the subject as the speaker speaks, which consequently makes sentences that conveys otherwise unacceptable. The acceptability is a coordination of what the speaker’s choice of wh-the-hell implicates and what an embedded wh-expression semantically conveys. My account can be replicated with other veridical verbs such as confirm and tell.

44) a. 
   I/John know(s) **who the hell** was living in that house.

   a’. I/John do(es)n’t know **who the hell** was living in that house.

   b. I/John will know **who the hell** was living in that house (by then).

   b’. I/John won’t know who the hell was living in that house.

   c. I/John would have known **who the hell** was living in that house.

   c’. I/John wouldn’t have known **who the hell** was living in that house.

   d. How would I/John know **who the hell** was living in that house?

   e. How would I/John not know **who the hell** was living in that house?

In addition, because the acceptability of an embedded wh-the-hell is not a grammatical matter, the unacceptability in (45a) and (45c) can be remedied when the presupposition – that the subject knows the referent denoted by the embedded wh-the-hell – evaporates in a certain contexts, as shown in (45) and (46) respectively. They further support my argument that sentences such as (44a)/(44c’) are well-formed.

45) Detective:  Do you know who the hell was living in that damn house next to you?

   You:       Yup. I know **who the hell** was living in that damn house. But I don’t wanna tell you. I hate cops. They give me tickets all the time.

46) John is deaf and blind. He wouldn’t have known who the hell was living next door.

To summarize, wh-the-hell is a wh-expression whose force and powers are intensified by the intensifier the hell, namely, the force of Totality and the power to bind and the power to be bound. The former restricts the hell
to occur with Totalizing wh-expressions such as what; the latter forces the hell to split. A speaker’s choice to use it instead of a regular wh-expression implicates that he thinks what it denotes is something out of ordinary.

3.3  **DÀODĪ AND WH-THE-HELL ARE NOT THE SAME**

So unlike what has been prevalently assumed, Mandarin Chinese dàodī (lit. ‘to the bottom’) is quite different from English wh-the-hell in many ways.

**DÀODĪ IS A SENTENTIAL ADVERB; WH-THE-HELL IS A WH-EXPRESSION**

One of the most obvious reasons is that dàodī is a sentential adverb and wh-the-hell is a wh-expression. A sentential adverb qualifies the sentence; a wh-expression denotes a referent. They occur in different phrasal positions and conveying different semantic powers.

**DÀODĪ PRESUPPOSES WHAT IT QUALIFIES; WH-THE-HELL DOES NOT PRESUPPOSE ANYTHING**

Using dàodī to qualify a question presents the speaker as presupposing the ignorance conveyed by that question; using dàodī to qualify an assertion presents the speaker as presupposing the proposition conveyed by that assertion. But none of that is present when asking a wh-the-hell question.

**DIFFERENCE IN HOW SPEAKERS’ EMOTIONS ARE IMPLICATED THROUGH USING DÀODĪ AND WH-THE-HELL**

The impatience, annoyance, and irritation, emotions that are associated with the use of dàodī in questions are inferred from speakers’ presupposing their ignorance. The presupposition conveys that speakers have been ignorant about the question long before it is uttered, and the negative emotions are inferred from us being human. The attitude associated with asking wh-the-hell questions are inferred from something very different. When speakers use the hell to intensify wh-expressions, they flag that what the wh-expression denotes is unusual. And depending on the context where the question is asked, speakers’ attitude is inferred, e.g., surprise, anger, dissatisfaction, etc.
CHAPTER IV  STARTING A NEW CONVERSATION

It would be an overstatement to say that Mandarin Chinese questions have been given a complete account in this thesis. There are still so many questions unanswered and so many related subjects untouched. Nevertheless, this thesis has started a new conversation: Mandarin Chinese questions are not so much different from questions in other languages such as English, and the reason is not their shared formal structure but how questions are asked in human languages. It has been a repeated theme throughout the thesis that by viewing questions as speech-acts, issues in Mandarin Chinese questions previously only thought to be solvable formally – the type of approaches that usually cannot resist involving superimposed syntactic or semantic postulations – can now be accounted for sans the complicated formal computation. Complexity is not necessarily a bad thing, but if being complicated does not bring out good results, then there is a problem. In my thesis, I demonstrate that formal accounts for every question-type fail our expectation, whereas accounts based on speech-acts excel.

4.1 ONE STEP AT A TIME: THE UNDERSTANDING OF MANDARIN CHINESE QUESTIONS

In Chapter 1, I started the conversation by asking readers a very simple question: what are ‘questions’? At first blush, a layman’s idea seems to be quite reasonable – questions sound quite different from other sentences, so they must be a special type of sentence. This idea turns out to be the rarely challenged basis of a series of serious academic and theoretical pursuit that follows. The birth of ‘Q’ has become the unequivocal part of the theory of syntax. But what is gained other than supererogatory syntactic structures that strive to explain the differences of forms? I laid out the road map to my argument in Chapter 1.

Chapter 2 is devoted to the four main sentence-types in Mandarin Chinese used to ask questions, namely, particle questions, disjunctive questions, A-not-A questions and wh-questions. Their previous analyses are re-examined and are determined to be inadequate. For particle questions, I argue that the sentence-final particles in particle questions are not the type of question-markers many researchers assumed. They do not turn a sentence which, by itself, cannot be a question into one that can. In fact, their contribution is purely presuppositional. For disjunctive questions, I argue that the disjunctive 還是 háishi (‘or’) does not carry a question-feature as many have proposed. It is a disjunctive that presupposes options, and the utterers’ ignorance is inferred from the choice of
this particular disjunctive. The disjunctive 還是 háishi (‘or’) stands in contrast with the other disjunctive 或者 huòzhē (‘or’) which, I argue, presupposes alternatives. This not only explains the prevalent use of háishi in questions and huòzhē in assertions but also explains why háishi does not always occur in questions — because speakers’ ignorance conveyed through a háishi-question is an inference, and it can be cancelled. For A-not-A questions, I argue that the A-not-A constituent does not bear a question feature as previous studies have suggested. Having a positive predicate immediately followed by a negative one in the same sentence disallows the sentence to construe a meaningful proposition. Speakers of such sentence-type can hence present themselves as not knowing if the positive proposition is true. Thus A-not-A questions are a type of yes-no questions. For wh-questions, I argue that the lack of overt wh-displacement in Mandarin Chinese open wh-questions is due to a language specific process which splits the wh-expression at LF. Being bound by the binding segment of the wh-expression at the wide-scope position, the in-situ wh-variable, which occupies a referring position, cannot refer to an individual. It is a hole in the sentence. Speakers of such sentence-types can hence present themselves as being unable to fill in that information.

In Chapter 3, my accounts for Mandarin Chinese question-types are put to use. I argue that the sentential adverb 到底 dàodǐ (lit. ‘to the bottom’), which is one of the most commented on topics in Mandarin Chinese because of its predominate use in questions, does not carry a question feature. In fact, I point out it would be wrong to say it lexically bears one because this sentential adverb does not always occur in questions. I propose that it is nothing more than a regular adverb that means ‘to the bottom’. Its use in questions presents speakers as presupposing that the ignorance conveyed through the questions is not new and the speakers have been pondering about it for a while before the questions are uttered. I argue that the meaning of the adverb dàodǐ (‘to the bottom’) presupposes a process, and when it qualifies an incomplete sentence, the ignorance conveyed through the incompleteness is being presupposed. Furthermore, I argue that the previous assumption that dàodǐ is the Mandarin Chinese wh-the-hell is a misunderstanding. I demonstrate that they are completely different by also providing my account for wh-the-hell.

Chapter 4 is the conclusion.
4.2 FURTHER QUESTIONS – FUTURE RESEARCH SUBJECTS

The work done in this thesis has created many new avenues upon which questions in Mandarin Chinese can be further explored. Following are some of the potential subjects that I think need to be further researched and investigated. They may be issues that do not quite fit in this paper, ideas that I speculate while researching, or thoughts I came up with during the writing of this paper.

4.2.1 THE RESTRICTION ON ASKING A CERTAIN WH-QUESTIONS

In English, you can point at Stieg Larsson’s book at Barnes & Nobles and innocently ask *Who is the girl with the dragon tattoo?* But you cannot ask the same question with the *wh*-expression in the subject position like English as in Mandarin Chinese. When asking an open *wh*-question with a *wh*-expression in the subject position, you are taken to have the ability to visually and/or physically identify the individual in question and you convey that you want the *name* of that individual. But you can neither visually and/or physically identify a fictional character in the book in real life nor are you remotely interested in the *name* of a fictional character you barely have any idea about. This is simply not the type of *wh*-question you would ask in such context.

The position where a *wh*-expression in Mandarin Chinese occurs seems to dictate the type of *questioning* speech-act that is performed. They are finer-grained than what I have proposed in Section 2.4 where open *wh*-questions simply present speakers as not knowing the marked reference in the utterance. In fact, they have discernable purpose. Consider the following examples. Both (1a & b) are open questions, inquiring who the girl dressed in black is. But asking (1a) presents the speaker as ignorant of the girl’s identity, i.e., a mechanic, the driver of bus 126 at 7 am, or John’s sister, whereas asking (1b) conveys the ignorance of her name, i.e., Mary, Claire or Lydia.

1) a. 那個穿黑色衣服的姑娘是誰?

   ná ge chuān hēisè yīfú de nǚhái shì shéi?

   ‘Who is that girl dressed in black?’

   \( (\text{Open question}) \)
b. 誰是那個穿黑色衣服的女孩？ (Open question)

shéi shǐ nà ge chuān hēisè yífú de nǚhái

‘Who is that girl dressed in black?’

And it would be a pragmatic offense if you utter a wh-expression in the wrong phrasal position when you are not presenting your ignorance appropriately. For example, if you want to know the name of the beautiful person your friends have been discussing for the past two hours, you must ask a wh-question with the wh-expression in the subject position, as in (2a). But if you place the wh-expression in the predicate, as in (2b), you would be mistaken as wanting them to exemplify ‘a’ beautiful person, not the one they have been talking about.

2) a. 誰很漂亮？ (Open question)

shéi hěn piàoliàng?

who very beautiful

‘Who is beautiful?’

b. 很漂亮的是誰？ (Open question)

hěn piàoliàng de shì shéi?

very beautiful DE SHI who

‘Who is beautiful? (Who is the beautiful one?)’

In the girl-in-a-black-dress example, we have the girl standing in front of us. If we need a category she falls under, i.e., her name, we need to ask a question that places the wh-expression in the subject position; if we need a description of her, i.e., what her relation is to the host or what makes her invited to the party, we need to ask a question that places the wh-expression in the predicate. In the a-beautiful-girl-discussion example, the subject of the conversation, a beautiful girl, is presupposed. If we want the name of the girl produced, the wh-expression must be uttered in the subject position, and if we want an example of a beautiful girl, the wh-expression must occur in the predicate. The position where a wh-expression occurs in Mandarin Chinese seems to correspond to a particular subtype of wh-question, and the subtypes wh-questions illustrated here seem to be sensitive to Austin’s
(1953) quartet of assertive speech-acts: calling, describing, exemplifying and classing. When an item is given and the predicate is produced, the assertion is either calling or describing; when a predicate is given and the item is produced, the assertion is either exemplifying or classing. He calls it ‘direction of fit’. And what further divides the assertions categorized under the same ‘direction of fit’ is ‘onus of match’. Between calling and describing, if the predicate matches the sense of the given item, it is a calling assertion, and if the item matches the sense of the predicate, then it a describing assertion. Consider the girl-in-the-black-dress example again. If your friend says to you *She is Lisbeth*, he presents the predicate, *is Lisbeth*, as matching the given item, *the girl standing in front of you*. It is a calling assertion. And if your friend says to you *She is actually the host of the party*, he presents the given item, *the girl in the black dress*, as matching the predicate, *is the host of the party*. It is a describing assertion. 

Exemplifying and classing can be discerned in the same way. When the sense of the predicate matches the sense of the item, it is exemplifying and when it is the other way around, it is classing. Given that questions are analyzed in relation to their corresponding assertions, Fiengo (2007) points out that each of these assertive speech-acts corresponds to a particular type of wh-question: calling questions, describing questions, exemplifying questions and classing questions. And the observations I make above are likely to be Mandarin Chinese’s way to overtly mark the finer-grained questioning speech-acts. I have not yet studied how, or in what way, Austin’s quartet is sensitive to Mandarin Chinese wh-questions, but all the evidence seems to point in that direction.

4.2.2 是 SHÌ IN QUESTIONS

The word 是 shì is a preposition. It is frequently used in Mandarin Chinese questions to add additional speech-act effects. For example, (3a & b) differ only by the presence/absence of shì. Although both are confirmation questions, conveying the speaker’s insufficient belief in you like her, asking (3a) presents the speaker as pointing out that YOU, but no one else, seem to like her, whereas (3b) does not present such stress.

3) a. 是你喜歡她嗎?
   shì nǐ xǐhuān tā ma?
   SHI you like her MA
   ‘YOU like her?’
b. 你喜歡她嗎?

nǐ xīhuān tā ma?

you like her MA

‘You like her

This type of emphasis cannot be made in open questions. As shown in the following, shì cannot occur in a disjunctive question, as in (4a), an A-not-A question, as in (4b), and a wh-question, as in (4c).


*shì [Zhāngsān] chī le [píngguǒ] háishì [júzì] (ne)?

SHI Zhangsan eat.ASP apple or orange Q

Intended: ‘Was it an apple or an orange that it was only Zhangsan who ate _____?’

(Errlewine 2012: (24a))

b. *是你喜不喜歡她?

shì nǐ xǐ bù xīhuān tā?

SHI you like-not-like her

‘Do YOU like her?’

c. *是你喜歡誰?

shì nǐ xīhuān shéi?

SHI you like who

‘Who do YOU like?’

I did not investigate the role of shì in my thesis. The occurrence of shì can be spotted in many other types of speech-acts, including varieties of assertions and sorts. To give a full account of shì in questions, one must have a full picture of shì in Mandarin Chinese, which is beyond the scope of this thesis. It is, however, an interesting topic that could potential be fruitful in understanding more about Mandarin Chinese.
4.2.3 TO DO THINGS WITH QUESTIONS

Needless to say, questions communicate speakers’ ignorance, and this thesis is dedicated to explaining how some sentence-types in Mandarin Chinese are used to do just that. But questions, as speech-acts, are used to do things beyond straightforward questioning. A lot of the times, we present ourselves as being ignorant so as to do things with other purposes. For example, yes-no questions in both English and Mandarin Chinese can be used to make offers. On the airplane, the stewardess may ask you *Would you like tea or coffee?* or the equivalent *A-not-A* question in Mandarin Chinese. And at some other times, we ask questions that are so obvious that we are taken to make a statement. For example, in English, we have *What a wonderful world! and How cute is that! And in Mandarin Chinese, we have 這東西哪裡有這麼貴的！* (*zhè dòngxī nǎlǐ yòu zhème guì de!* (lit. ‘Where does this expensive thing exist?’); means ‘This thing can’t be that expensive.’). Sarcastic effects can sometimes be cast to a question if the obvious is the opposite, e.g., *How can Sarah Palin ever be wrong?*

The uses of a certain sentence-types to do things beyond questioning is an interesting subject to explore. So far, we have explained individual tokens mostly based on the flouting of the Maxims, but it would be intriguing to see if those uses can be systematically accounted for in relation to the sentence-types used to proffer them. Moreover, it would be important to find out what are universal, e.g. yes-no questions to make offers, and what are specific to a certain language. For example, in Mandarin Chinese, an offer made with a confirmation *ma* question is taken to be more polite than one made with an open yes-no question. Once we connect the dots, we will have an even more complete picture of questions.

4.3 CONCLUSION

A healthy amount of skepticism is necessary for any field of study. If Nicolaus Copernicus had accepted the idea of many great thinkers of the 16th century who believed that the earth is the center of the universe, he would not have set out to mathematically theorize that the sun is the center of our universe instead. If Charles Darwin never had any doubt that we are how we are as created by the Creator, he would not have written *On the Origins of Species*. What is dangerous is that we let go of our skepticism all together and accept full heartedly what the great thinkers have told us.
What are questions? It is a question that we should never stop asking.
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