

Evidentiality, Alethic Modality and Temporal Modifiers: The Case of *Běnlái* vs. *Yuánlái* in Mandarin Chinese

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Abstract

In this paper, I re-examine *yuánlái*₂ ‘it turn out that’, for which Wu (2012a) proposes a temporal semantics. Revising the temporal semantics proposed, I also argue that *yuánlái*₂ is evidential and simultaneously denotes alethic modality. Following Portner’s (2009) idea on the semantics of alethic modality, I propose the following: (i) *yuánlái*₂ presents a proposition which is undetermined with respect to the truth value at a time in the past of some reference time but which is true at the reference time, and (ii) this temporal semantics follows from an epistemic modal base, while the ordering source is empty. The second point guarantees that *yuánlái*₂ is evidential (dependent on the epistemic modal base) but presents a fact, rather than an inference or conjecture, because of the empty ordering source. This proposal potentially separates evidentiality from epistemic modality.

1 Introduction

Evidentiality has attracted the attention of many linguists in the last two decades, e.g. Aikhenvald & Dixon (2003), Cornillie (2007), Diewald & Smirnova (2010), Faller (2002, 2006), de Haan (1999, 2001), Matthewson et al. (2007), Murray (2017), Palmer (2001: 35-52), Peterson (2010), Simon-Vandenberg & Aijmer (2007: 24-39), Willett (1988), etc.

There have been quite some studies on evidentiality in Mandarin Chinese (hereafter, Chinese), as well, for example, Hsiao (2015), Hsieh (2008), Tang (2010), Tantucci (2013), L. Yang & Tian (2015), Y. Yang & Yap (2012), among many more. Furthermore, these studies on evidentiality in Chinese either focus on pragmatic issues, e.g. Hsieh (2008), L. Yang & Tian (2015), and so on, or deal with evidentiality and modality, for example,

Hsiao (2015), Tang (2010), and so forth. Tantucci (2013) is special in that it deals with evidentiality and the experiential *guò*.

One point that does not attract much attention is the potential interaction between evidentiality and temporal modifiers. Temporal modifiers are modifiers which describe the temporal location of a nominal head or a situation, such as *yuánlái*, *běnlái*, *yǐqián*, etc. Wu (2012a, 2012b, 2014a, 2014b, 2018a), Wu & Kuo (2012), and so on, examine different temporal modifiers and their syntactic/semantic behavior.

Wu & Kuo (2012) inspect *běnlái* carefully and propose a temporal semantics. Roughly, when *běnlái* presents a proposition, it indicates that the proposition is true at a time in the past of a reference time but not true at the reference time (= the speech time under unmarked circumstances).

Wu (2012a) compares *běnlái* and *yuánlái* and argues that the essential difference between *běnlái* and *yuánlái* lies in the ways how contrast is satisfied: *běnlái* allows for one-way contrast, as pointed out by Wu & Kuo (2012), but *yuánlái* two-way contrast. That is, for *běnlái*, a proposition is true at a time in the past of a reference time, but not true at the reference time, whereas, for *yuánlái*, a proposition can be true at a time in the past of a reference time, but not true at the reference time, or vice versa. To abstract over the above idea, we can get $[p(t) \wedge \neg p(t') \wedge t < t']$ vs. $([p(t) \wedge \neg p(t') \wedge t < t'] \vee [\neg p(t) \wedge p(t') \wedge t < t'])$.

However, the above temporal semantics for *yuánlái* is not sufficient, although on the right track. There is at least one point concerning Wu (2012a) that needs further consideration, that is, *yuánlái*₂, as designated in Wu (2012a), whose temporal semantic is $[\neg p(t) \wedge p(t') \wedge t < t']$, actually involves evidentiality. See the example below.

- | | | | | |
|-----|----|------|-----------|-----------|
| (1) | Wǒ | kàn | bàozhǐ | cái |
| | I | read | newspaper | not.until |

zhīdào. Chen Jinxing yuánlái duǒ
 know Chen Jinxing YUÁNLAÍ hide
 zài Táoyuán!
 at Taoyuan
 ‘I did not know that until I read the newspaper. It turns out that Jinxing Chen hid at Taoyuan!’

Jinxing Chen is a notorious wanted criminal, who has killed a few people. He can be found nowhere. Finally, the police locates and arrests him. One can utter (1) after (s)he reads the newspaper and learns about Chen’s whereabouts.

Under the scenario given above, *yuánlái*₂ involves reported evidence, e.g. the classification in Aikhenvald (2003: 3-6). This significant semantic aspect is not taken into consideration in Wu (2012a). Therefore, a re-examination of *yuánlái*₂ is called for.

This paper is organized as follows. Section 2 is a literature review. In Section 3, I present data concerning *yuánlái*₂, evidentiality and alethic modality, and then propose a revised semantics. Section 4 concludes this paper.

2 Literature Review

In this paper, I critically review Wu (2012a) and Wu & Kuo (2012) to show the necessity to re-examine *yuánlái*₂.

Wu & Kuo (2012) conduct a detailed analysis of adverbial *běnlái*¹ based on the following two types of examples.

- (2) a. Tā běnlái jiù hěn gāo.
 he BĚNLÁI JIÙ very tall
 ‘He has been very tall (all the time)!’
 b. Tā běnlái hěn gāo.
 he BĚNLÁI very tall
 ‘He used to be tall. (But he is not now.)’

Wu & Kuo (2012) propose that *běnlái* obeys a constraint of contrast, which is realized as a contrast in the truth of a proposition at different times. (2a) seems a counter-example. But, a sentence such as (2a) must be used under a specific type of scenarios. For example, someone comments on the person’s height and indicates that he is very tall,

implying that he was not tall. In order to emphasize that there is no change in his height and that he has been this tall all the time, (2a) is uttered. That is, there is still a contrast in the context for (2a). Hence, Wu & Kuo (2012: 379) propose the following:

- (3) a. Contrastive Requirement for *běnlái*:
Běnlái shows a contrast in whether a proposition holds at different times.
 b. A proposition presented by *běnlái* is not true at an argument time *t* if and only if there is a time *t'* in the past of *t* and the proposition is not true at *t'*.
 c. The proposition is true at *t* only when contextual information indicates that the proposition does not hold at *t'*; otherwise, the proposition does not hold at *t*.

Basically, Wu & Kuo’s (2012) idea is as follows. *Běnlái* specifies that a proposition is not true at a reference time *t* (= argument time in (3)) but is true at another time *t'* in the past of *t*, unless the context indicates otherwise.

Wu (2012a) compares *yuánlái* with *běnlái*. Basically, *yuánlái* is interchangeable with *běnlái* in the two types of examples in (2). When *yuánlái* and *běnlái* are interchangeable, it is labeled as *yuánlái*₁. However, *yuánlái* can appear in examples where *běnlái* is semantically incompatible, such as (1), to mean ‘it turn out that’. It is labeled as *yuánlái*₂.

Wu (2012a) essentially argues the following. *Yuánlái* and *běnlái* both obey a contrastive requirement in terms of the truth values of a proposition at different times. There are three ways to satisfy the requirement: first, there is contrastive information, in the context, with regards to whether a proposition holds; second, a proposition holds at a past time but does not hold at a latter time, and third, a proposition does not hold at a past time but holds at a latter time. *Běnlái* utilizes the first two ways, while *yuánlái* relies on all of the three. If the contextual effect is put aside, then we can see that *běnlái* shows one-way contrast whereas *yuánlái* two-way.

While Wu (2012a) and Wu & Kuo (2012a) are on the right track in terms of the temporal semantics for *běnlái* and *yuánlái*, there are two semantic properties of *yuánlái* which have yet to be explained. The first one is the evidentiality revealed

¹ Please note that *běnlái* can also function as an adjective modifying a noun, as discussed in Wu (2012b).

by *yuánlái*₂ as pointed out in the previous section. The second is whether *yuánlái*₂ indicates that a proposition is not true at a certain past time.

Example (1) discussed in the previous section can illustrate both the properties not covered in Wu (2012a). First, *yuánlái*₂ reveals evidentiality. As we can see from (1), using *yuánlái*₂, the speaker indicates that there is evidence to support his/her new finding.

Moreover, it is inaccurate to suggest that *yuánlái*₂ presents a proposition which is not true at a time in the past of a reference time. Again, (1) supports this point. The speaker of (1) clearly indicates that (s)he has no knowledge of Jinxing Chen's hideout until (s)he reads the newspaper.

Given the above two points, I suggest that another examination of *yuánlái*₂ is necessary so that a complete picture of the semantics of *yuánlái*₂ (and of *yuánlái* in general) can be provided.

3 Evidentiality and Unknown Past

In Section Two, I argue that, while enlightening and inspiring, Wu's (2012a) semantics of *yuánlái*₂ is insufficient in two respects: first, evidentiality should be taken into consideration; second, it is unknown whether a proposition presented by *yuánlái*₂ is true or not at a time in the past of a reference time. While the second point is clearly demonstrated by (1), the first point needs some further illustration.

First, let's look at what type of evidentiality *yuánlái*₂ can express. Based on the source of information, Willet's (1988) classifies evidentiality as follows: (i) direct (attested): visual, auditory, and other sensory; (ii) a) reported: second-hand, third-hand, and folklore; (ii) b) inference: results and reasoning.

*Yuánlái*₂ can rely on either direct or indirect sources. For example, Xiaoming does not know that his neighbor, Mr. Wang, is a professor. But one day he sees Mr. Wang teaching in a classroom on campus. Then, he utters, "*Wáng xiānshēng yuánlái shì jiàshòu!* 'It turns out that Mr. Wang is a professor!'" Under this scenario, Xiaoming relies on direct information because this utterance with *yuánlái* is based on what Xiaoming has seen.

*Yuánlái*₂ can depend on indirect sources of information as well. (1) is a very good example of reported source. The speaker obtains the (new)

knowledge of Jinxing Chen's hideout through the newspaper. This is a reported source.

On the other hand, Aikenvald (2003: 3) identifies two types of evidentiality system: "(i) those which state the existence of a source for the evidence without specifying it; and (ii) those which specify the kind of evidence – be it visually obtained, based on inference or reported information." Although *yuánlái*₂ relies on direct or indirect source of information,² it is of the first type in Aikenvald (2003): *yuánlái* simply indicates that the speaker has some sort of evidence, but the lexical item itself says nothing about what type of source it relies on.³ As our discussion above, the sources of information for *yuánlái* comes from the context. If nothing in the context tells us about the source of evidence, then the source of evidence for *yuánlái*₂ is unknown.

The second point to address is the close relationship between evidentiality and epistemic modality, e.g. de Haan (1999, 2001), Tang (2010), and so on.

The reason why evidentiality is closely related to epistemic modality is that epistemic modality relies on the speaker's knowledge about the world, of which evidence is part. de Haan (1999, 2001) attempts to tell evidentiality and epistemic modality apart.

von Fintel & Gillies (2000) propose that English *must* expresses a reading stronger than a bare declarative sentence because it is a modal expressing evidentiality, not epistemic necessity.

Tang (2010) suggests that epistemic modals *kěnéng* and *yídìng* interact with evidentiality in the sense that they refuse first-hand information.

So, now we can ask a question: is *yuánlái*₂ some type of epistemic modal? An epistemic modal expresses a degree of certainty lower than a declarative sentence even though its modal force is necessity. This is because an epistemic necessary modal expresses the speaker's stipulation, inference or conjecture, none of which has a degree of

² There are cases where an evidential marker relies on either direct or indirect source of information, but not both. For example, von Fintel & Gillies (2000) propose that English *must* is actually evidential and it cannot rely on visual evidence. For example, if one sees it raining right now, it is not allowed to use *must*.

³ *Yuánlái*₂ is not unique in this respect. Turkic has a similar system of evidentiality. Please refer to Johanson (2003) for details.

certainty higher than a declarative sentence because a declarative sentence is used to present a fact.

Wu (2018b) examines a series of adverbials, including *yídìng*, which can express either strong epistemic necessity or intensification on the degree of affirmativeness toward the truth of a declarative sentence. These two readings can be distinguished by embedding a sentence with *yídìng* under different matrix predicates:

- (4) a. Xiàozhǎng qiángdiào míngtiān
principal emphasize tomorrow
yídìng méiyǒu kǎoshì.
YÍDÌNG no test
'The principal emphasized that there definitely will be no test tomorrow.'
- b. Wǒ cāi míngtiān yídìng
I guess tomorrow YÍDÌNG
méiyǒu kǎoshì (ba).
no test (Prc⁴)
'I guess, it must be the case that there definitely will be no test tomorrow.'

In (4a), *qiángdiào* 'emphasize' takes a proposition on which the speaker emphasizes. Hence, *yídìng* in this example does not express strong epistemic necessity, but an emphatic reading, which is referred to as an intensification reading in Wu (2018b).

On the other hand, in (4b), *cāi* 'guess' takes a stipulation or conjecture as its complement. Furthermore, the sentence particle *ba* decreases the degree of certainty toward a proposition. As a result, *yídìng* in this example expresses strong epistemic necessity. That is, it is an epistemic necessary modal expression.

Let's apply the above test used in Wu (2018b) on *yuánlái₂* to determine whether *yuánlái₂* is a type of epistemic necessary modal.

- (5) *Tā cāi Wáng xiānshēng yuánlái
he guess Wang Mr. YUÁNLÁI
shì jiàoshòu ba.
be professor Prc
'*He guesses that it turns out that Mr. Wang is a professor!'

⁴ The abbreviations used in this paper include: Prc for a sentence particle.

As indicated by (5), *yuánlái₂* cannot be embedded under *cāi* 'guess' and the sentence particle *ba* is not compatible here as well. (5) suggests that *yuánlái₂* cannot be an epistemic necessity modal.⁵

Wu (2018c) discusses future modal expressions in Chinese: *jiāng*, *huì*, *yào*, *jiānghuì* and *jiāngyào*. He suggests that, among many other things, *jiāng* expresses epistemic future, whereas *huì* evidential future. One of the major differences between *jiāng* and *huì* is gradability. *Jiāng* is not gradable but *huì* is. This difference is revealed by the examples below. As we can see, *jiāng* is not compatible with *bù yídìng* 'not necessarily', but *huì* is.

- (6) Tā bù yídìng *jiāng/huì chūxí.
he not YÍDÌNG *JIĀNG/HUÌ present.
'He will not necessarily be present.'

Bù yídìng 'not necessarily' partially negates the truth of a proposition, resulting in a *p or not p* reading. That is, for (6), *bù yídìng huì* 'not necessarily HUÌ' means that he will or will not be present.

Yuánlái₂ does not allow for gradability that evidential *huì* permits. See below.

- (7) *Wáng xiānshēng bù yídìng yuánlái
Wang Mr. not YÍDÌNG YUÁNLÁI
shì jiàoshòu.
be professor

This difference revealed by (6) and (7) indicates that, while both *yuánlái₂* and *huì* are evidential, *huì* is still epistemic in the sense that it presents an inference/stipulation/conjecture, but *yuánlái₂* is not epistemic at all because *yuánlái₂* is not associated with an inference, stipulation, or conjecture. Rather, *yuánlái₂* expresses that the speaker has new findings about a certain situation.

So far, I have argued that *yuánlái₂* is evidential and that *yuánlái₂* specifies the speaker having evidence for new findings about a situation.

How about *běnlái*? Is *běnlái* evidential as well? The answer is negative. While the speaker always needs certain type of knowledge, e.g. evidence, to make an utterance, not every sentence contains an evidential element. It is generally agreed that evi-

⁵ One might be wondering why *yuánlái₂* is not compatible with *qiángdiào* 'emphasize', either. The answer is that *yuánlái₂* does not have an emphatic reading.

dentials reveal the sources of the information expressed in a sentence, e.g. Aikhenvald (2003), de Haan (1999, 2001), Matthewson et al. (2007), and so on.

On the other hand, as pointed out above, an evidentiality system can simply assert that there exists a source of evidence, but does not explicitly reveal the source.

While every utterance requires knowledge of some sort, not every sentence contains an evidential element because it is not absolutely required to specify (the existence of) a source for evidence. *Běnlái* is of such an example. For a sentence such as *Wáng xiānshēng běnlái shì jiàoshòu* ‘Mr. Wang BĒNLÁI be professor’, the speaker expresses, as a fact, that Mr. Wang was previously a professor but he is not now.

Given the above discussion, we can see that *yuánlái*₂ expresses more than just a temporal reading: *yuánlái*₂ also involves the speaker’s attitude toward the temporal reading, that is, the temporal reading is *new* to the speaker. To put it differently, using *yuánlái*₂, the speaker not only presents a fact, but also specifies that the fact is a finding new to him/her!

Since the speaker’s attitude is involved, as suggested in, for example, Simpson (1993:47), *yuánlái*₂ expresses some type of modality. The question now is: what type of modality *yuánlái*₂ denotes.

What is commonly known as modality include dynamic, deontic and epistemic, e.g. Nuyts (2006:2). However, there is at least one type of modality, i.e. alethic, whose status in linguistic modality is not well-establish, e.g. Lyons (1977:791), Palmer (1979:2-3, 1986:10-11), Portner (2009:122-123), and so on.

There is a very fine line between alethic and epistemic modality. Nuyts (2006:8) states that alethic modality can be defined as concerning “the necessary or contingent truth of propositions (i.e. mode of truth)”, and that epistemic modality refers to “the state of a proposition in terms of knowledge of belief (i.e., modes of knowing).”

However, although it is possible to provide distinct definitions for alethic and epistemic modality, the line is not that easy to draw. Since the speaker utters anything based on his/her knowledge, it is extremely difficult to tell apart mode of truth and mode of knowing, as suggested by Palmer (1986:11).

Furthermore, Palmer (ibid) states that “there is no formal grammatical distinction in English, and perhaps, in no other language either, between alethic and epistemic modality.” As we can see here, Palmer suggests that there is no cases of alethic modality in natural language.

On the other hand, discussing subjective and objective epistemic modality, Portner (2009:122-123) suggests that “[t]he closest thing to objective epistemic modality on Palmer’s view would be alethic modality.” To state it differently, Portner’s view is that alethic modality is actually a type of epistemic modality.

In this paper, I would like to argue that *yuánlái*₂ is a natural language case of alethic modality, based on the following reasons. First, while every utterance of the speaker’s is based on his/her knowledge, the speaker does not have to explicitly state that an utterance is supported by his/her knowledge. For example,

- (8) a. Kǒnglóng liùqiānliùbǎiwàn nián
dinosaur 66.million year
qián juézhǒng.
ago extinct
‘Dinosaurs became extinct 66 million years ago.’
b. jù wǒ suǒ zhī, kǒnglóng
based I SUO know dinosaur
liùqiānliùbǎiwàn nián qián juézhǒng.
66.million year ago extinct
‘As far as I know, dinosaurs became extinct 66 million years ago.’

There is no doubt that both (8a) and (8b) are uttered, based on the speaker’s knowledge, although in (8b) this source of information is explicitly stated. However, (8a) and (8b) have a slight, subtle difference: if one utters (8b), it sounds like he/she is trying to limit his/her responsibility in the following sense: as the speaker explicitly points out, this utterance is based on the speaker’s knowledge. The speaker could be wrong, if his/her knowledge is inaccurate or insufficient.⁶

While the speaker’s knowledge is required to utter both (8a) and (8b), this requirement does not

⁶ While Langacker (1985) states that the explicit appearance of the speaker in a sentence makes the sentence more objective, my informants and I all agree that (8b) is more subjective than (8a) in the sense explained here. I will not discuss this difference further in this paper.

make either (8a) or (8b) a modal statement. On the contrary, both (8a) and (8b) are bare declarative sentences.

The key factor in determining whether a statement involves epistemic modality is whether it is explicitly specified that this statement is an inference, conjecture or stipulation by means of an epistemic modal. Otherwise, the statement does not involve epistemic modality.⁷

In terms of Chinese, only sentences containing epistemic modal expressions such as *huì* ‘will’, *yídìng* ‘definitely’, *kěnéng* ‘possible’, etc. are considered involving epistemic modality. Please note that a sentence involving one of these epistemic modal expressions describes an inference, stipulation or conjecture.

Moreover, even though Portner (2009: 122-123) suggests that alethic modality is a type of epistemic modality, yet, mode of truth should not be confused with mode of knowing based on the above discussion on explicit syntactic realization of a constituent indicating dependence on the speaker’s knowledge. That is, alethic modality does not have to be a type of epistemic modality.

Given above, I argue that *yuánlái*₂ is the most likely candidate of alethic modality expression in natural language for three reasons. First, when the speaker uses *yuánlái*₂, he/she expresses his/her attitude toward a proposition, that is, the proposition is a new finding. Hence, *yuánlái*₂ can be considered as expressing a type of modality. Second, *yuánlái*₂ is evidential in that it indicates the existence of evidence although it does not specify what type of source the proposition relies on. Thirdly, *yuánlái*₂ presents a new finding of a proposition, which is true at a reference time but is undetermined concerning the truth value at a time in the past of the reference time. That is, apparently, *yuánlái*₂ involves mode of truth. Since, *yuánlái*₂ does not present an inference, stipulation or conjecture, it does not involve epistemic modality. To put it differently, it does not involve mode of knowing.

If the above argument of *yuánlái*₂ as an evidential marker that expresses alethic modality is on the right track, then a very subtle, but interesting, im-

plication arises. That is, it seems possible that (at least some kind of) evidentiality is not a subtype of epistemic modality. Although epistemic modality is defined to be concerned with reliance on the speaker’s knowledge, yet, as pointed out above, a sentence containing an epistemic modal expression is an inference or conjecture. At least for *yuánlái*₂, while it is evidential, it does not present an inference or conjecture. Instead, it presents a fact (as a new finding of the speaker’s). Consequently, if the proposal that *yuánlái*₂ is both an evidential marker and an alethic modal expression, the relationship between evidentiality and epistemic modality should be re-examined.

Kratzer (1977, 1991, 2012[1981]) proposes to model the semantics of a modal expression by means of modal base, modal force and ordering source. An epistemic modal expression, in Kratzer’s proposal, concerns an epistemic modal base, modal force (necessary or possible) and an ordering source such as a doxastic one. To put it in plain English, using an epistemic modal expression, the speaker relies on his/her belief, if the ordering source is doxastic, to judge/stipulate whether a proposition is true.

Portner (2009) suggests that alethic modality has an epistemic modal base and an empty ordering source. An epistemic modal base contains propositions which are true according to the speaker’s knowledge. Since the ordering source is empty, the evaluation of a proposition totally depends on the modal base and no other factor, e.g. the speaker’s belief, is involved.

The semantics of *yuánlái*₂ can be modeled along similar lines. An epistemic modal base can be considered as source of evidence. No ordering source means that a proposition presented by *yuánlái*₂ is not an inference or stipulation. This is how *yuánlái*₂ gets an evidential, but factual reading. The sense of ‘new’ finding comes from the temporal contrast: when the truth of a proposition is undetermined at a time in the past of a reference time, but the same proposition is true at the reference time, a sense of new finding naturally arises. Hence, the semantics of *yuánlái*₂ can be given, as below:

- (9) $[yuánlái_2(p)] = 1$ if and only if $[p(t') = ? \wedge p(t) = 1 \wedge t' < t]$ follows from an epistemic modal base $f(w)$, where w is a possible world.

⁷ In fact, the same reasoning applies to evidentiality as well. The speaker needs to depend on some sort of evidence to make an utterance. But, this dependence does not make every utterance evidential. As a matter of fact, only when a constituent in a sentence indicates some type of source of evidence will a sentence be considered as evidential.

Before summarizing this section, one question needs to be addressed. That is, if *yuánlái*₂ is evidential and alethic, how about *yuánlái*₁ (and *běnlái* since *yuánlái*₁ and *běnlái* is mostly interchangeable)?

The answer to this question is negative. While it is certainly true that both *yuánlái*₂ and *yuánlái*₁ (hence *běnlái*) depend on evidence of some sort, yet, as discussed above, dependence on evidence and revelation of (the existence of) source of evidence are two different things. *Yuánlái*₂ specifies the existence of evidence, whereas *yuánlái*₁ (and *běnlái*) simply depends on, but does not specify, the existence of evidence.

To sum up, in this section, I argue that *yuánlái*₂ is evidential and at the same time expresses alethic modality, because (i) it specifies the existence of evidence, although it says nothing about the source of evidence, and (ii) it presents a fact as a new finding, instead of an inference or conjecture.

4 Responses to Reviewers

In this section, I would like to briefly respond to reviewers' comments. The first reviewer suggests that more evidence from other languages be provided to support the distinction between alethic and epistemic modality. I follow the definitions of alethic and epistemic modality from standard introductory books such as Portner (2009). As noted in Palmer (1986:11), few, if any, examples in natural language can be found to demonstrate the distinction between epistemic and alethic modality.

The second reviewer suggests two points. First, in (5), *běnlái* can substitute for *yuánlái*₂ and therefore *běnlái* is epistemic. Second, in (7), replacing *yuánlái*₂, *běnlái* still cannot render the sentence good. Why are two epistemic modal expressions *yídìng* and *běnlái* not compatible? For the first question, I would like to point out that *cāi* 'guess' can take a bare declarative sentence, which contains no modal expression at all. Hence, simply because *běnlái* can occur in (5) does not make *běnlái* an epistemic modal expression. Moreover, *běnlái* is not an epistemic modal expression because it does not present a stipulation, conjecture or inference, unlike typical epistemic modals. As for the second point, *běnlái* is not compatible with *yídìng* because *běnlái* presents a fact, but expressing strong epistemic necessity, *yídìng* indicates

high degree of affirmativeness toward a stipulation, conjecture or inference.

The third reviewer suggests that (1) plus sentence-final *a* should be considered. My preliminary response to this suggestion is as follows. Using *a*, the speaker expresses his/her mild surprise, regarding the proposition. As for evidentiality, more literature and examination on this particle is required.

5 Conclusion

In this paper, I re-examine *yuánlái*₂. Wu (2012a) proposes a temporal semantics for *yuánlái*₂: it indicates that a proposition is not true at a time in past of a reference time, but is true at the reference time.

With respect to the semantic behavior of *yuánlái*₂, I argue for two points. First, the truth of a proposition presented by *yuánlái*₂ is undetermined, instead of being false, at a time before a reference time. Second, *yuánlái*₂ specifies the existence of evidence.

To model its semantics, I argue that *yuánlái*₂ is evidential and denotes alethic modality. Following Portner's (2009) idea on the semantics of alethic modality, I propose the following: (i) *yuánlái*₂ presents a proposition which is undetermined regarding its truth value at a time in the past of a reference time but which is true at the reference time, and (ii) this temporal semantics follows from an epistemic modal base, while the ordering source is empty. The second point guarantees that *yuánlái*₂ is evidential (dependent on the epistemic modal base) but presents a fact, rather than an inference or conjecture, because of the empty ordering source. This proposal has a subtle implication: (some type of) evidentiality might not be a subtype of epistemic modality.

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