

Article

A Chinese-Japanese Contrastive Study on ‘What’ to Express Negative Attitude, Word Order Similarity, and Underlying Implicit Modality Markers

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日本語と中国語における「話し手の態度」を表す what の対照研究  
語順の類似性と含意的モダリティ標識の視点から

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要旨

中国語の‘什么’には、疑問詞としての用法の他に、「話し手の否定的な態度を表出する」機能を持つ付加詞としての用法が存在することが長く議論の対象になっている。一方で、日本語の「何」にも付加詞としての用法が存在することが指摘されているが、対照言語学の立場から中国語の‘什么’の付加詞用法との対応関係を網羅的に記述した研究は存在しない。本稿では、「話し手の否定的な態度を表出する」付加詞用法の‘什么’に対応する日本語の疑問詞「何」について詳述し、両言語に通底する「解釈と語順の対応関係」及び「含意的なモダリティ標識」の存在を論じる。

- (1) a. 你哭什么? (= 你不应该哭!) (Tsai 2021: 1)  
b. 君は何を泣いているの? (= 泣くべきではない。)
- (2) a. (「他哭了」という発話を受けて) 什么他哭了! (Yang 2021: 62) (= 他不会哭的! )  
b. 「彼が泣いた」という発話を受けて) 何が「彼が泣いた」だ。(= 彼が泣いたはずがない。)

「‘什么’/「何」の統語的位置」と「含意されるモダリティ」の対応関係は、中国語と日本語で共通している。(1a-b)においては、‘什么’と「何を」がいずれも表層的には目的語の位置に生起している点・「不应该/べきではない」という義務的モダリティの否定形式が含意されている点が共通している。(2a-b)においては、‘什么’は文頭に生起し、「何」は主格標識「が」を付加されていることから、いずれも統語構造上の高い位置を占めていることが伺える。加えて、いずれも‘什么’及び「何が」の直後に、対話者の発話を引用することが義務的である。また、(2a-b)は「不会/はずがない」という推測モダリティの否定形式が含意されている点も共通している。

本稿では、上述の表層的な対応関係を出発点に、「話し手の態度を表す付加詞としての‘什么’」に対応する日本語表現を網羅的に詳述する。加えて、中国語と日本語の差異である「他動詞文における『何』の解釈の曖昧性と、脱曖昧化 (disambiguation) のプロセス」を分析し、日本語の統語論・音韻論的特性が、中国語とは異なる形で、如何に「何」の解釈に影響を与えるのかをも分析の対象とする。

付加詞用法における‘什么’と「何」の類似点と相違点を体系的に記述することで、中国語と日本語の言語類型論的な研究に資するとともに、通言語的なモダリティ研究にも貢献することを本研究の目的とする。

Keywords: Wh-item, syntax/pragmatics interface, adjunct WHAT, speaker's attitude.



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## 1. Introduction

### 1.1. Non-canonical *Shenme* ‘what’ in Mandarin Chinese (MC): Negative Attitude toward Interlocutors

In this paper, the author reveals how ‘what’ in Mandarin Chinese (henceforth: MC): *shenme* and Japanese: *nani* render non-canonical readings to express the speaker’s negative attitude. Studies on Mandarin Chinese reveal that *shenme* ‘what’ can denote the speaker’s negative attitude toward the interlocutor.

- (1) Ni ku shenme?!  
you cry what  
‘What the heck are you crying for?! (You shouldn’t be crying.)’  
Tsai (2021, p. 1)

In (1), *shenme* ‘what’ denotes the speaker’s negative attitude toward the interlocutor; therefore, it is not an ordinary interrogative sentence to denote an information-seeking question. Such non-canonical use of what-like wh-items has attracted a considerable attention in the field of syntax/pragmatics interface studies.

### 1.2. How does Japanese *Nani* ‘what’ Denote a Negative Attitude?

According to Ochi (2004), it was revealed that ‘what’ shows interpretations like ‘why’ in languages such as Japanese, Hungarian, German, Serbo-Croatian, Russian, Italian, and MC.

- (2) John-wa naze/nani-o awateteiru no?  
John-TOP why/WHAT-ACC panicking Q  
‘Why is John panicking?’  
Ochi (2004, p. 40)

In (2), *nani-o* ‘what-ACC’ shows the negative attitudinal reading in question. Its interpretation is involved with reason asking questions which are akin to *naze* ‘why’. Ochi (2004) classified such what-like wh-items to render reason asking questions as WHAT and posited that these WHATs in languages had characteristics analogous to ‘how come’ and ‘why the hell’ in English. From a formal syntactic point of view, Ochi postulated that WHATs are located in CP layers, i.e., locus that is higher than sentential subjects. In more general terms, as in Obenauer (2006); Saruwatari (2016); B. C. Yang (2021), those WHATs can be seen as adjuncts to modify the whole sentence. For the sake of clarity, in this paper, the author defines WHAT as an adjunct to denote the speaker’s negative attitude toward the interlocutor.

Ochi (2004) also pointed out that the non-canonical what-like wh-items, i.e., WHAT, tend to be used when ‘the speaker is emotionally affected’ (p.35). Therefore, Japanese sentences with *nani-o* ‘what-ACC’ as in (2) could be involved with the speaker’s negative attitude which is observed in MC *shenme* ‘what’ as in (1). However, to the best of my knowledge, there is only a limited number of studies on the negative attitudinal use of WHAT in Japanese. Besides, contrastive studies on the attitudinal use of WHAT between Japanese and MC are limited as well.

In this study, the author implements a contrastive study on the negative attitudinal adjunct (i.e., WHAT) use of MC *shenme* ‘what’ and Japanese *nani* ‘what’, thus pointing out that *nani-o* ‘what-ACC’

and *nani-ga* 'what-NOM' correspond with negative attitudinal *shenme* 'what' in MC. In section 2, the author goes over studies on the negative attitudinal use of what-like wh-items. In section 3, the author provides linguistic data of *nani* 'what' to denote the speaker's negative attitude in Japanese. The author reveals that the construal of these WHATs in both Japanese and MC is dependent on their syntactic position in sentences and argument structures. In section 4, the different disambiguating processes between Japanese and MC are investigated. This highlights the different syntactic/phonologic structures of the two languages. In section 5, the author summarizes the contents of this study and notes problems to be solved in future studies.

### 1.3. Research Questions

The research questions addressed in this paper are listed below.

1. How does the Japanese language denote the speaker's negative attitude with *nani* 'what'?
2. What is the similarity/difference between the two WHATS: *shenme* and *nani*?

## 2. Literature Review

### 2.1. The Negative Attitudinal Use of *Shenme* 'what' in MC

'What' which denotes the speaker's negative attitude has long been investigated in the field of syntax/pragmatics interface studies. Ochi (2004) pointed out that what-like wh-items may show reason asking question readings as in (2). Ochi classified them as WHAT and posited that these WHATs in languages had characteristics akin to 'how come' and 'why the hell'. From the formal syntactic point of view, Ochi postulated that WHATs are located in CP layers, i.e., locus that is higher than sentential subjects. Obenauer (2006); Saruwatari (2016) and B. C. Yang (2021) posit that WHAT is an adjunct to modify the whole sentence.

The negative attitudinal use of what-like wh-items is observed cross-linguistically: Japanese, Hungarian, German, Serbo-Croatian, Russian, Italian (Ochi 2004); MC (Pan 2014, 2015b; Tsai 2011, 2021, to appear; B. C. Yang 2021, to appear); Bellunese (Obenauer 2006); Vietnamese (Tsai to appear); Taiwanese Southern Min (Lau and Tsai 2020); Cantonese (Cheng 2021), among others.

A rather peculiar tendency of the negative attitudinal use of MC *shenme* 'what' is its binary syntactic distributions. Studies reveal the fact that negative attitudinal *shenme* 'what' shows binary syntactic distribution such as postverbal position and sentence-initial position.

Non-canonical use of *shenme* 'what' has been observed in traditional studies on MC such as Chao (1968), Lu and Jiang (1985), and Shao and Zhao (1989). Shao and Zhao (1989) points out that *shenme* 'what' can be used in rhetorical questions<sup>1</sup> to emphasize suspicion or negation as in (3).

- (3) Xiao *shenme*? Zheyè zhìde hǎoxiǎo!  
laugh what this deserve funny  
'What are you laughing at? This is not a case for you to laugh!'  
Shao and Zhao (1989, p. 36)

<sup>1</sup>Rhetorical questions are wh-questions with empty set/singleton readings. An empty set reading denotes 'nothing/ no one' with the wh-item such as 'Who cares! = No one cares!'. A singleton reading empathizes the fact that there is only one thing/person that the wh-item refers to such as 'Who is your supervisor! = I am the only your supervisor!'. In both cases, as the speaker already knows the answer to his/her question, rhetorical questions are not ordinary information-seeking questions.

Besides, Shao and Zhao (1989) also points out that *shenme* ‘what’ in the sentence-initial position can denote negation as in (4).

- (4) Shenme laozihao                    a!    Yuelaiyue    buzhiqian!  
      what    time-honored.brand MOD increasingly unprofitable  
      ‘It is not “time-honored brand”, no longer profitable.’  
      Shao and Zhao (1989, p. 34)

Traditional MC studies observed that *shenme* ‘what’ can render non-canonical (non-interrogative) readings and the syntactic distribution of *shenme* ‘what’ affects its interpretation.

### 2.1.1. L-SHENME: Postverbal *Shenme* ‘what’ to Denote Negative Attitude

Based on observations in traditional studies, B. C. Yang (2021) classified the negative attitudinal use of *shenme* ‘what’ which is located in the postverbal position as L(ow)-WHAT as in (1).

As the negative attitudinal use of Japanese *nani* ‘what’ is also described as WHAT, for the sake of clarity, the author employs the terminology L-SHENME. L-SHENME refers to an adjunct use of *shenme* ‘what’ which follows a predicate verb and denotes the speaker’s negative attitude as in (1). As the sentence employs an intransitive verb *ku* ‘cry’, L-SHENME should not be an argument of the verb. Therefore, it must be construed as an adjunct (i.e., WHAT) to modify the whole sentence. In comparison, in the case of transitive constructions, the interpretation of *shenme* ‘what’ becomes ambiguous.

- (5) a. Ni kan shenme? [Information-seeking question]  
      you look what  
      ‘What are you looking at?’  
      b. Ni kan shenme?! [Negative attitude: L-SHENME]  
      you look what  
      ‘Why the heck are you looking at?!’  
      Y. Yang and Tsai (2019, p. 36)

One possible reading is an information-seeking question as in (5a); while, another reading available is L-SHENME as in (5b).

Thus, a question arises: how can we disambiguate these two readings? A phonological experiment in Y. Yang and Tsai (2019) revealed that the locus of stress and sentential intonation pattern are clues to disambiguate information-seeking/negative attitudinal readings. 1) In the case of information-seeking question readings, the stress is located on *shenme* ‘what’. The sentence shows a rising sentence intonation pattern; 2) In the case of the negative attitudinal readings, the stress is located on the predicate verb *kan* ‘look’. The sentence shows a plain intonation pattern (p. 40-41). This reveals that MC needs phonological clues to disambiguate information-seeking/negative attitudinal readings.

In summary, L-SHENME is located in the postverbal position to express the speaker’s negative attitude. In the case of the intransitive construction, *shenme* ‘what’ is not an argument of the predicate verb, thus it must be L-SHENME as in (1). In the case of the transitive construction, the readings would be ambiguous between an information-seeking question and negative attitudinal expression. To

disambiguate these two readings, the locus of stress and the sentential intonation pattern should be employed.

### 2.1.2. H-SHENME: Sentence-initial *Shenme* 'what' to Denote Negative Attitude

B. C. Yang (2021, to appear) point out that *shenme* 'what' in the sentence-initial position shows a different syntactic behavior from postverbal ones shown in (1) and (5).

- (6) a. Ta ku le. (Speaker A)  
he cry PERF  
'He cried.'
- b. Shenme ta ku le?! Luanshuo! (Speaker B)  
what he cry PERF nonsense  
'It is not right (for you) to say, "He cried"! Nonsense!'
- B. C. Yang (2021, p. 62)

In (6b), *shenme* 'what' in the sentence-initial position renders a 'refutatory attitude' against the utterance of the interlocutor such that 'it is not right for you to say ...'. Its rather peculiar tendency is that it requires using a quotation of the utterance of the interlocutor. Therefore, an alternation of lexical items leads to infelicitous discourse as below.

- (7) a. Hao kaixin! (Speaker A)  
so happy
- b. #Shenme hao gaoxing?! (Speaker B)  
what so happy
- c. Shenme hao kaixin?! (Speaker B)  
what so happy  
'It is not right (for you) to say, "so happy"!''
- B. C. Yang (2021, p. 68)

In (7b), *gaoxing* 'happy' which is a synonym of *kaixin* 'happy' is used and the discourse becomes unnatural. This clearly shows that the sentence with sentence-initial *shenme* 'what' requires the use of a quoted form of the utterance.

In this paper, the author classifies *shenme* 'what' in (6b) and (7b) as H-SHENME. H-SHENME is located in the sentence-initial position and expresses the speaker's negative attitude like 'it is not right for you to say...'. H-SHENME also requires using a quoted form of the interlocutor's utterance.

## 2.2. The Negative Attitudinal Use of *Nani* 'what' in Japanese

### 2.2.1. *Nani-o* 'what-ACC' and Speaker's Negative Attitude

According to Ochi (2004), Japanese *nani-o* 'what-ACC' also shows non-canonical why-like readings as described in (2).

Ochi (2004) points out that *nani-o* 'what-ACC' can denote a why-like reading which is akin to *naze* 'why' as in (2). In addition, Ochi also posits that the why-like *nani-o* is used when the speaker is emotionally affected, i.e., puzzled, annoyed, etc. (p. 35). Ochi classified this non-canonical adjunct use of what as WHAT.

Endo (2015) probes the specific syntactic distribution of WHAT (*nani-o* ‘what-ACC’) in Japanese and posits that it is located in a higher position of CP that can scope over the entire sentence. This implies that WHAT in Japanese can be seen as an adjunct to modify the whole sentence. In footnotes, Endo also asserted that the why-like *nani-o* in questions is involved with implicit negative deontic modality markers (p. 226).

### 2.2.2. *Nani-ga* ‘what-NOM’: Direct Quotation of Utterance

Yamadera (2010) illustrates how *nani-ga* ‘what-NOM’ which is located in the sentence-initial position denotes the speaker’s negative assertion.

- (8) Nani-ga/Doko-ga Kenji-ni eigo-ga hanaseru tte iu.noyo!  
what-NOM/where-NOM Kenji-DAT English-NOM speak QUO say.C  
‘Why do you say that Kenji can speak English? (He cannot speak English.)’  
Yamadera (2010, p. 166)

Another crucial observation in Yamadera (2010) is the fact that *nani-ga* ‘what’ with negative assertion should precede a subject in the sentence as shown in (9). In other words, *nani-ga* ‘what’ must take the sentence-initial position.

- (9) a. Nani-ga Shinjuku-ga yakei-ga kireina no.  
what-NOM Shinjuku-NOM night.view-NOM beautiful C  
‘Why do you say that it is Shinjuku that a night view is beautiful?’  
b. ??Shinjuku-ga nani-ga yakei-ga kireina no.  
Shinjuku-NOM what-NOM night.view-NOM beautiful C  
‘Why do you say that it is Shinjuku that a night view is beautiful?’  
c. \*Shinjuku-ga yakei-ga nani-ga kireina no.  
Shinjuku-NOM night.view-NOM what-NOM beautiful C  
‘Why do you say that it is Shinjuku that a night view is beautiful?’  
Yamadera (2010, p. 171)

Yamadera posits that *nani-ga* ‘what-NOM’ is not a subject but an adjunct to modify the whole sentence to denote the negative assertion of the speaker.

Based on the linguistic data provided in Yamadera (2010), Saruwatari (2016) implements a contrastive analysis among Japanese *nani-ga* ‘what-NOM’; *doko-ga* ‘where-NOM’; MC *shenme* ‘what’ and *nali* ‘where’ in sentence-initial positions. Saruwatari points out that, in the case of rhetorical questions, these two WHATs show a quite similar syntactic distribution as below:

- (10) a. Kare-ga taoreteru yo. (Hanako)  
he-NOM fall.down COP  
‘He has fallen down.’  
b. Nani-ga/doko-ga kare-ga taoreteiru tte. (Taro)  
What-NOM/where-NOM he-NOM fall.down COP  
‘Why do you say that he has fallen down? (He has not fallen down.)’  
(11) a. Ta yao dao. (Zhang San)  
he will fall.down  
‘He will fall down.’



- b. Shenme ta yao dao. (Li Mei)  
What he will fall.down  
'Why do you say that he will fall down? (He will not fall down.)'  
Saruwatari (2016, pp. 21–22)

Saruwatari argues that *nani-ga* 'what-NOM' in Japanese and sentence-initial *shenme* 'what' share the same property in wh-rhetorical questions: 1. both *nani-ga* and *shenme* appear in the sentence-initial position; 2. a direct quotation of the utterance of the interlocutor follows them.

However, Yamadera (2010) and Saruwatari (2016) mainly focus on the syntactic distribution of *nani-ga* 'what-NOM', thus, its negative attitudinal readings are not discussed thoroughly.

### 2.3. Summary

What-like wh-items may show non-canonical adjunct readings cross-linguistically (a.k.a. WHAT). According to Ochi (2004), these are used in the context when the speaker is emotionally affected. In MC, studies observed negative attitudinal readings of *shenme* 'what' in binary syntactic positions. Though studies on Japanese also observed such adjunct use of *nani* 'what', its underlying negative attitude is not discussed thoroughly.

## 3. A Contrastive Study on Two WHATs: *Shenme* and *Nani*

### 3.1. L-SHENME vs. *Nani-o* 'what-ACC'

In this section, the author provides Japanese linguistic data which corresponds to the WHAT use of *shenme* 'what' (adjunct use to express the speaker's negative attitude) in different syntactic distributions.

#### 3.1.1. Intransitive Constructions

In the case of intransitive constructions, the interpretation of *nani-o* 'what-ACC' and *shenme* 'what' are identical.

- (12) Ni ku shenme?!  
you cry what  
'What the heck are you crying for?! (You shouldn't be crying.)'  
=(1)Tsai (2021, p. 1)
- (13) Kimi-wa nani-o naiteru no?  
you-TOP what-ACC crying Q  
'What the heck are you crying for?! (You shouldn't be crying.)'

Note that in the Japanese counterparts to L-SHENME as in (13), the verb's progressive forms are used. Though MC does not employ a progressive aspectual marker such as *zai*, as Tsai (2021) and Yang (2021) point out, L-SHENME is usually used to argue against ongoing events and is not compatible with a modal auxiliary verb *hui* 'will' or a perfective marker *le*.

According to Lau and Tsai (2020), Taiwanese Southern Min requires a progressive aspectual marker *leh* to denote the speaker's negative attitude with WHAT. Though the presence/absence of aspectual markers is not identical among languages, sentences with WHAT share the same properties



such as denoting the speaker's negative attitude toward the interlocutor or an ongoing event. Therefore, the author posits that the presence/absence of aspectual markers is not the crucial difference between MC and Japanese.

As *naku* 'cry' is an intransitive verb, even though *nani* 'what' is followed by an accusative marker '-o', *nani* 'what' in (13) cannot be a direct object of the verb *naku* 'cry'. As this *nani* 'what' does not have a position in the argument structure, it must be an adjunct to modify the whole sentence as posited in Obenauer (2006); Saruwatari (2016); B. C. Yang (2021). This adjunct use of *nani-o* renders the sentence a negative attitudinal reading 'you should not cry!'. In the case of intransitive constructions, there is a quite straightforward correspondence between Japanese *nani-o* 'what-ACC' and MC *shenme* 'what' in the postverbal position.

### 3.1.2. Transitive Constructions

Compared to intransitive constructions, the interpretation of *nani-o* 'what-ACC' is rather puzzling in transitive constructions.

According to Y. Yang and Tsai (2019), *shenme* 'what' shows binary interpretations such as a genuine information-seeking question reading as in (5a), and a negative attitudinal reading involved with an implicit negative modality marker as in (5b). In the case of (5a), the syntactic property of *shenme* 'what' is an object of the predicate verb; in (5b), *shenme* 'what' is an adjunct (i.e., WHAT). *nani-o* 'what-ACC' also shows similar ambiguity in transitive constructions.

- (14) a. Kimi-wa nani-o miteru no?  
you-TOP what-ACC looking Q  
'What are you looking at?'  
b. Kimi-wa nani-o miteru no?!  
you-TOP what-ACC looking Q  
'What the heck are you looking at?! (You should not look at it!)

In (14a), the sentence denotes an information-seeking reading. Analogous to *shenme* 'what' in (5a), *nani-o* 'what-ACC' in (14a) is an object of the predicate verb *miru* 'look'. In contrast, (14b) involves a negative attitudinal construal as in (5b). Presumably, *nani-o* 'what-ACC' in (14b) is also an adjunct like *shenme* 'what' in (5b).

### 3.2. Disambiguating Two WHATs: Object vs. Adjunct Contrast

To disambiguate information-seeking/negative attitudinal readings in (5) and (14), Chinese and Japanese employ different strategies.

As we mentioned above, Y. Yang and Tsai (2019) argues that MC employs phonological clues such as the locus of stress and the sentential intonation pattern to disambiguate these readings. In the Japanese language, the disambiguating system is not identical to MC. The author argues that there are two major factors for disambiguating information-seeking/negative attitudinal *nani-o* 'what-ACC': argument structures and lexical pitch accent on *nani* 'what'.

### 3.2.1. Argument Structure and Attitudinal Readings of *Nani-o*

B. C. Yang (2021) posits that negative attitudinal *shenme* 'what' in MC does not have a position in its argument structure; therefore, it should be seen as an adjunct. Though Japanese *nani-o* 'what-ACC' includes an accusative case marker, in the case of the attitudinal construal, its syntactic property is not that of an object of the predicate verb. However, transitive constructions seem puzzling because they also allow wh-object constructions as in (14a). Interestingly enough, Ochi (2004) provided a curious cue to disambiguate the elusive syntactic properties of *nani-o* 'what-ACC'.

- (15) John-wa nani-o manga-o yonderu no?  
John-TOP WHAT-ACC comics-ACC reading Q  
'Why is John always reading comics?'  
Ochi (2004, p. 40)

Though Ochi did not dig deeper into this point, (15) obviously denotes the speaker's negative attitude toward the interlocutor such that 'You should not always read comics!'. The aggressiveness in (16) with *naze* 'why' is obviously reduced relative to (15).

- (16) John-wa naze manga-o yonderu no?  
John-TOP why comics-ACC reading Q  
'Why is John always reading comics?'

What is interesting is, once *manga-o* 'comics-ACC' is deleted, the sentence would show the ambiguity which we observed in (14).

- (17) a. John-wa nani-o yonderu no?  
John-TOP what-ACC reading Q  
'What is John reading?'  
b. John-wa nani-o yonderu no?!  
John-TOP what-ACC reading Q  
'Why the heck is John reading it?'

The ambiguity on *nani-o* 'what-ACC' derives from its ambiguous position in the argument structure. If it is an object of the predicate verb, the whole sentence shows information-seeking question readings. In contrast, if it is an adjunct (i.e., WHAT), the sentence shows a negative attitudinal reading. This implies that once another lexical item takes the object position as in (15), *nani-o* 'what-ACC' cannot be an object of the verb so the only available syntactic property for *nani-o* 'what-ACC' is an adjunct WHAT.

This implies that adding another internal argument can disambiguate information-seeking question/negative attitudinal readings as in (18).

- (18) a. Kimi-wa nani-o sumaho-o miteru no?!  
you-TOP what-ACC smartphone-ACC looking Q  
'Why the hell are you looking at your smartphone?! (You should not look at it!)'  
b. Kimi-wa nani-o posta-o miteru no?!  
you-TOP what-ACC poster-ACC looking Q  
'Why the hell are you looking at the poster?! (You should not look at it!)'

In §4, the author discusses why this disambiguation process is not available in MC.

### 3.2.2. Modification of Lexical Pitch Accent on *Nani* ‘what’

Another means of disambiguating two readings of *nani-o* ‘what-ACC’ is a modification of the lexical pitch accent on *nani* ‘what’ itself. *Nani* ‘what’ has an ordinary [high-low] lexical pitch accent. When the pitch accent is modified into [low-rising], the sentence will involve the speaker’s negative attitude toward the interlocutor.

Once LR (Low Rising) *nani* is employed, regardless of transitive/intransitive constructions, the sentence renders negative attitudinal readings as in (19) and (20).

- (19) Kimi-wa naNI-o naiteru no?!  
you-TOP LRwhat-ACC crying Q  
‘What the hell are you crying for?!’<sup>2</sup>
- (20) Kimi-wa naNI-o miteru no?!  
you-TOP LRwhat-ACC looking Q  
‘Why the hell are you looking at?!’

In intransitive constructions like (13) and (19), using *nani* ‘what’ with an ordinary pitch accent already shows the speaker’s negative attitude, thus, using LR *nani* merely emphasizes its aggressiveness. In transitive constructions as in (14) and (20), the sentence with LR *nani* only denotes the negative attitudinal reading. We dig deeper into this lexical pitch accent modification later in §4.

### 3.3. H-SHENME vs. *Nani-ga* ‘what-NOM’

As Saruwatari (2016) pointed out, the sentence-initial *shenme* ‘what’ and *nani-ga* ‘what-NOM’ show similar syntactic characteristics. B. C. Yang (2021, to appear) introduces how *shenme* ‘what’ located in the sentence-initial position (i.e., H-SHENME) must precede a direct quotation of the interlocutor’s utterance and denotes a refutatory attitude toward that.

- (21) a. Kare-ga nai-ta (rashii-yo) (Speaker A)  
he-NOM cry-PST EVI-MOD  
‘He cried.’
- b. Nani-ga [kare-ga nai-ta] da! (Speaker B)  
what-NOM he-NOM cry-PST COP  
‘It is not right (for you) to say, “He cried”!’

The characteristics of (21b) are analogous to (6b). *Nani-ga* ‘what-NOM’ precedes a quoted form of the interlocutor’s utterance. The sentence denotes the speaker’s attitude to refute the interlocutor. *Nani-ga* ‘what-NOM’ also requires using a quoted form as below:

- (22) a. Chou kurushii! (Speaker A)  
so painful  
‘It is so painful!’

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<sup>2</sup>LR what in glossing means LR *nani* which denotes the speaker’s negative attitude.

- b. Nani-ga chou [kurushii]/\*tsurai da! (Speaker B)  
what-NOM so painful/painful COP  
'It is not right (for you) to say, "so painful"!'

In (22a), an adjective *kurushii* 'painful' is uttered by speaker A<sup>3</sup>. In this discourse, speaker B can only use the identical adjective *kurushii* 'painful'. If a synonym *tsurai* 'painful' is used, the discourse would not be felicitous.

What is a Japanese counterpart to H-SHENME? As examples of the negative attitudinal use of *nani-ga* 'what-NOM', Yamadera (2010) and Saruwatari (2016) employ two types of clauses: an interrogative clause with a question particle *-no* in (8); a declarative clause with a copula *-tte* in (10b). The author posits that *nani-ga* [quote] *-tte/da!* structures are putative Japanese counterparts to MC H-SHENME.

- (23) a. Kare-ga nai-ta (rashii-yo) (Speaker A)  
he-NOM cry-PST EVI-MOD  
'He cried.'
- b. \*Nani-ga [kare-ga nai-ta] nano? (Speaker B)  
what-NOM he-NOM cry-PST Q  
'Int. It is not right (for you) to say, "He cried"!'
- (24) a. Chou kurushii! (Speaker A)  
so painful  
'It is so painful!'
- b. ?Nani-ga chou [kurushii] nano? (Speaker B)  
what-NOM so painful Q  
'Int. It is not right (for you) to say, "so painful"!'

The declarative clause type<sup>4</sup> as in (21b) and (22b) can render the refutatory attitude akin to in MC H-SHENME. In contrast, sentences with a question particle *no* in (23b), (24b) leads to ungrammatical or unnatural utterances. This observation also supports the argument of B. C. Yang (2021) that sentences with H-SHENME are not interrogative sentences anymore (p. 68).

### 3.4. Implicit Modality Markers in Two WHATs

To give a unified explanation of two types of attitudinal WHATs in Japanese and MC, the author posits that both of them are involved with implicit negative modality markers such as 'should not' and 'will not'. As Tsai (2011, 2021) points out, L-SHENME is used to denote the speaker's negative attitude toward the interlocutor. Therefore, Tsai argues that it must be involved with negative deontic modality as in (25).

<sup>3</sup>Though B. C. Yang (2021) selected *kaixin* 'happy' and *gaoxing* 'happy' as a pair of synonyms, since their Japanese counterparts *ureshii* 'happy' and *tanoshii* 'exciting' denote different mental states, the author avoids using them. *Kurushii* 'painful' and *tsurai* 'painful' are employed as a pair of synonyms instead. The author considers that this alternation of lexical items would not affect the reliability of this analysis.

<sup>4</sup>Note that *nani-ga* [quote] *tte!* structure shows sentence-final pitch rising like other interrogative sentences in Japanese. Therefore, it is not tenable to assert that the *nani-ga* [quote] *tte!* sentence completely lacks interrogativity. Besides, readers may argue that *nani-ga* [quote] *da!* is not declarative but assertive. The gist here is the fact that using a question particle *no* leads to ungrammatical/unnatural sentences. At least, we can assume that negative attitudinal *nani-ga* 'what-NOM' structures are not identical to other wh-interrogative sentences to some extent.

- (25) a. Ni ku shenme?!  
you cry what  
'What the heck are you crying for?! (You **shouldn't**<sup>5</sup> be crying.)'  
b. Ni bu yinggai ku!  
you NEG DEON cry  
'You should not cry!'

Its Japanese counterpart in (26) can be paraphrased with a sentence with negation of the deontic modality marker.

- (26) a. Kimi-wa nani-o naiteru no?  
you-TOP what-ACC crying Q  
'What the heck are you crying for?! (You shouldn't be crying.)'  
b. Kimi-wa naku-beki dehanai!  
you-TOP cry-DEON NEG  
'You should not cry!'

In contrast, H-SHENME denotes the speaker's judgment against the utterance of the interlocutor. As Tsai (2021) points out, H-SHENME is posited to be involved with a negation of epistemic modality (i.e., 'impossible reading', p.13).

- (27) a. Shenme ta ku le?! Luanshuo!  
what he cry PERF nonsense  
'It is not right (for you) to say, "He cried"! Nonsense!'  
b. Ta bu hui ku de!  
he NEG DEON cry MOD  
'It is not possible for an event to happen such that he cried!'

As in (28), Japanese sentences with sentence-initial *nani-ga* can also be paraphrased with a negative epistemic modality marker.

- (28) a. Nani-ga [kare-ga nai-ta] da!  
what-NOM he-NOM cry-PST COP  
'It is not right (for you) to say, "He cried"!'  
b. Kare-ga naku hazu-(ga)-nai!  
he-NOM cry DEON-(NOM)-NEG  
'It is not possible for an event to happen such that he cried!'

Though this argument is still tentative, postulating the existence of underlying implicit modality markers (a negative deontic modality marker in L-SHENME and *nani-o* 'what-ACC'; a negative epistemic modality marker in H-SHENME and *nani-ga* 'what-NOM') helps us to develop a unified approach toward two types of negative attitudinal WHATs in Japanese and MC.

### 3.5. Summary

The Japanese language also has negative attitudinal adjunct (i.e., WHAT) use of *nani* 'what'.

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<sup>5</sup>Emphasized by the author.

The use of *nani-o* 'what-ACC' denotes negative attitudinal construal which is akin to L-SHENME in MC.

In intransitive constructions, it functions as an adjunct to express the speaker's negative attitude. In the case of transitive constructions, due to its elusive position in the argument structure, *nani-o* 'what-ACC' shows either information-seeking questions or negative attitudinal readings. Adding a direct object or modifying the lexical pitch accent on *nani* 'what' itself can disambiguate these two readings.

The use of *nani-ga* [quote] *-tte/da!* structures can denote the refutatory attitude which was observed in MC H-SHENME. Declarative sentences show more straightforward correspondence to H-SHENME. This also supports the argument in B. C. Yang (2021) that H-SHENME sentences are not interrogatives anymore.

To develop a unified explanation of two WHATs in Japanese and MC, the author postulates that there are implicit modality markers in sentences with WHATs: a negative deontic modality marker in L-SHENME and *nani-o* 'what-ACC'; a negative epistemic modality marker in H-SHENME and *nani-ga* 'what-NOM'.

#### 4. What are the Crucial Clues for Interpreting Two WHATs?

##### 4.1. Word Order Similarity in Japanese and MC

As we mentioned in §3, both Japanese and Chinese employ WHAT to express the speaker's negative attitude which is involved with negative implicit modality markers.

They share similar syntactic distributions. Both L-SHENME and *nani-o* 'what-ACC' occupy surface object position. Both H-SHENME and *nani-ga* 'what-NOM' appear in the sentence-initial position and precede direct quotes of the interlocutor's utterance. In addition, as Yamadera (2010) observed, *nani-ga* 'what-NOM' cannot move down to lower positions as shown in (9). In contrast, *nani-o* 'what-ACC' can follow the subject of the sentence as in (2).

Table 1: Syntactic Properties of two WHATs in MC and Japanese

Items	Surface Position	Implicit Modality	Clause Type
1. Japanese <i>nani-o</i>	Object	Negative deontic	Interrogative
2. MC L-SHENME	Object	Negative deontic	Interrogative
3. Japanese <i>nani-ga</i>	Sentence-initial	Negative epistemic	Declarative
4. MC H-SHENME	Sentence-initial	Negative epistemic	Interrogative

In sum, syntactic properties of *nani-o* 'what-ACC' and *nani-ga* 'what-NOM' are akin to MC L-SHENME and H-SHENME respectively as in Table 1.

One obvious discrepancy between MC H-SHENME and Japanese *nani-ga* 'what-NOM' is their surface clause types. B. C. Yang (2021, to appear) posits that the surface clause type of H-SHENME in MC is interrogative. In contrast, *nani-ga* 'quote' *-tte/da!* construction does not contain any question particles such as *no*. Since B. C. Yang (2021) argues that H-SHENME lacks interrogativity, if the analysis in B. C. Yang (2021) is on the right track, semantically speaking, sentences with H-SHENME are not interrogative ones. As MC remains a surface interrogative clause type, Japanese encodes the underlying implication in *nani-ga* 'what-ACC' with declarative clauses. In other words, it is merely two sides of a coin.

## 4.2. Disambiguation: Particles and Pitch Accent of Japanese

We observed the fact that WHATs show quite similar properties in MC and Japanese. Given these linguistic observations, are WHATs in MC and Japanese identical to each other? The difference in the two languages appears in the disambiguating system in transitive constructions.

### 4.2.1. Pseudo Double Accusative Construction to Disambiguate *Nani-o*

As we mentioned in 3.1.3, L-SHENME in MC and *nani-o* ‘what-ACC’ in Japanese exhibit ambiguity between information-seeking question readings and negative attitudinal readings. In Japanese, when another internal argument is added, the sentence only renders the negative attitudinal reading.

Again, the ambiguity derives from an elusive syntactic property of *nani-o* ‘what-ACC’. It can be an object of the predicate verb *miru* ‘look’ to denote a wh-question sentence as in (14a) but it also can be an adjunct to denote the speaker’s negative attitude as in (14b). In short, if *nani-o* ‘what-ACC’ cannot occupy the object position, as it cannot be an object of the predicate verb *miru* ‘look’, its interpretation must be an adjunct. In (18a), a noun *sumaho* ‘smartphone’ with an accusative case marker *o* appears in the clause; therefore, the object of *miru* ‘look’ must be the noun phrase *sumaho-o* ‘smartphone-ACC’. Thus, *nani-o* ‘what-ACC’ by no means occupies the object position so that it must be construed as an adjunct (i.e., WHAT).

As in (29), this disambiguating procedure in (18a) does not apply to MC L-SHENME.

- (29) a. Ni kan shenme dianshi?  
you look what TV  
‘Why the hell are you watching TV?!’  
b. Ni kan shenme xinwen?  
you watch what news  
‘What kind of news are you watching?’  
c. Ni kan shenme shu?  
you read what book  
‘What kind of book are you reading?’  
d. Ni kan shenme manhua?  
you read what comics  
‘Why the hell are you reading a comic book?!’

B. C. Yang (2021) finds out that the negative attitudinal *shenme* ‘what’ also can modify noun phrases as in (29). Though its surface structure is similar to Japanese ones in (18a), the attitudinal interpretation may depend on the following noun. As *kan shenme dianshi* ‘watch what TV’ shows the negative attitudinal interpretation, *kan shenme xinwen* ‘watch what news’ preserves the information-seeking question reading. In the same manner, *kan shenme shu* ‘read what book’ can be construed as a genuine information-seeking question, as *kan shenme manhua* ‘read what comic book’ is still reminiscent of the negative attitudinal reading. The judgment varies from informant to informant. Besides, some informants point out that the disambiguation needs context or phonological clues.

In MC, when a noun is added in L-SHENME constructions, *shenme* ‘what’ is interpreted as a modifier such as ‘what kind of’. In other words, *shenme-shu* ‘what-book (what kind of book)’ is construed as one phrase. Thus, the interpretation of these phrases is affected by the noun. As reading



books is a culturally preferred behavior, the interpretation of *shenme-shu* 'what-book (what kind of book)' tends not to be accompanied by a negative attitude. In comparison, reading comic books may not be a preferred behaviour, so the phrase *shenme-manhua* 'what-comic book' tends to involve the negative attitude with negative deontic modality such as 'should not'. What is crucial here is, since the [*shenme* + noun] phrase is a modification structure, the phrase itself is affected by the property of the noun which follows *shenme* 'what'.

Note that in MC, *shenme* 'what' cannot follow a direct object like double object constructions.

- (30) \*Kan dianshi shenme?!  
watch TV what  
'Int. Why (the hell) are you watching TV?! ('Don't watch TV!')'  
B. C. Yang (2021, p. 72)

Theoretically speaking, this should be attributed to the case marking systems in Japanese and MC. In Japanese, there is a genitive case marker *no* to denote 'what kind of' readings.

- (31) Kimi-wa nan-no hon-o yonderu no?  
you-TOP what-GEN book-ACC reading Q  
'What kind of book are you reading?'

Therefore, multiple accusative markers *nani-o* + noun-*o* in one sentence cannot be seen as a modification structure. Instead, the structure is somewhat similar to multiple object constructions observed in Japanese syntax studies.

- (32) ??Taroo-wa kudamono-o ringo-o hitotu-dake tabe-ta.  
Taroo-TOP fruit-ACC apple-ACC one-only eat-PST  
'Taroo ate fruits but he ate only one apple.'  
Saito (2016, p. 135)

Harada (1986); Kuroda (1988); Saito (2016) argue that the Japanese language marginally accepts double object structures that include multiple objects as shown in (32). This is a putative reason why sentences in (15) and (18) are grammatical.

First, since Japanese marginally accepts sentences with two (or multiple) accusative case markers *-o*, sentences including *nani-o manga-o* 'what-ACC comic-ACC' like (15) are also acceptable. Second, the Japanese language employs a genitive case marker *-no* to denote modification. *Nani-o* 'what-ACC' cannot be seen as a modifier to modify *manga* 'comic'. This is the crucial difference from MC *shenme manhua* 'what comic' whose *shenme* 'what' is construed as a modifier to modify *manhua* 'comic'. Third, when Japanese native speakers encode the sentence like (15) and (18), since the acceptability of multiple object reading is marginal as reported in Saito (2016), the preferred construal of *nani-o* 'what-ACC' would not be an object but an adjunct to emphasize the speaker's negative attitude.

- (33) a. Kimi-wa nani-o terebi-o miteru no?  
you-TOP what-ACC TV-ACC looking Q  
'Why the hell are you watching TV?! (You should not do that!)

- b. Kimi-wa nani-o nyusu-o miteru no?  
you-TOP what-ACC TV-ACC looking Q  
'Why the hell are you watching TV?! (You should not do that!).'
- c. Kimi-wa nani-o hon-o yonderu no?  
you-TOP what-ACC book-ACC reading Q  
'Why the hell are you reading a book?! (You should not do that!).'
- d. Kimi-wa nani-o manga-o yonderu no?  
you-TOP what-ACC comic-ACC reading Q  
'Why the hell are you reading a comic book?! (You should not do that!).'

The fact that all sentences from (33a) to (33d) involve the speaker's negative attitude with a negative deontic modality supports the hypothesis that adding a direct object can disambiguate sentences with *nani-o* 'what-ACC'. Since *shenme* + a noun forms a modification structure in MC, its construal is affected by the property of the selected noun which leads to the ambiguous interpretations between information-seeking question readings and negative attitudinal readings. To disambiguate them, phonological cues attested in Y. Yang and Tsai (2019) are also required. In contrast, *nani-o* noun-*o* structure only denotes the speaker's negative attitude with a negative deontic modality as shown in (33). This discrepancy on the disambiguation procedure reflects the different case marking systems between Japanese and MC.

#### 4.2.2. Japanese Lexical Pitch Accent and Pragmatic Implicature

A rather peculiar characteristic of Japanese *nani* 'what' is its lexical pitch accent and pragmatic implicature.

Ordinary *nani* 'what' has [high-low] lexical pitch accent (henceforth: HL *nani*). Employing this HL *nani* with canonical lexical pitch accent results in ambiguous readings in the case of transitive structures as we discussed in previous chapters. In contrast, once the modified lexical pitch accent: [low-rising: (LR *nani*)] is employed, sentences only render the negative attitudinal reading. In the case of *nani-o* 'what-ACC' in intransitive constructions which originally allow the negative attitudinal reading, employing LR *nani* emphasizes the aggressiveness of utterances.

A phonological/pragmatics interface study from Nakabayashi (2008) gives us a clue for analyzing the relationship between the lexical pitch accent and pragmatic implicature. In Nakabayashi's experiment, the participants whose first language is Japanese listened to a conversation consisting of 1). a question sentence; 2). a question consisting of one lexical item.

- (34) a. Issyo-ni kankoku-ni ika-nai?  
together-DAT South.Korea-DAT go-NEG  
'Why don't we go to South Korea?'
  - b. Kankoku? (With various lexical pitch accents)  
'South.Korea?'
- Nakabayashi (2008, p. 141)

Participants are asked to judge the emotion of the replier. Nakabayashi controlled the lexical pitch accent of the lexical items in one-word questions to test the crucial phonological cues which make Japanese native speakers conceive 'the replier is unpleasant/surprised.' As a result, these three

phonological cues below are found to be crucial for the judgment: 1. a significantly low F0 at the starting point of the articulation; 2. a sharp pitch rising with a wide pitch range; 3. a lengthened articulation duration. In the case of *Kankoku* 'South Korea', Japanese native speakers judge the replier to be unpleasant/surprised when F0 (pitch height) on the first syllable *ka* is lower than usual; the F0 sharply rises until the end of the lexical item *nkoku*; the duration of articulation is longer than other samples. In these cases, the replier's intention is construed as 'I do not want to go to South Korea.' or 'I am surprised to know that you want to invite me to go to South Korea so suddenly.'

Interestingly enough, LR *nani* shares some similar features with Nakabayashi (2008)'s observation. LR *nani* starts with lower F0 (pitch) and a sharp pitch rising follows it. The author hypothesizes that this general phonological rule on lexical pitch accent and pragmatic implicature in Japanese also applies to *nani* 'what', so it can express the speaker's negative attitude toward the interlocutor no matter what the argument structure is. In other words, LR *nani* is a genuine adjunct to denote the speaker's negative attitude, so that it cannot be an object to occupy the object position. Therefore, the author posits that LR *nani* is a putative negative attitude marker to denote the speaker's negative attitude in Japanese.

Needless to say, MC also employs phonological clues to disambiguate two interpretations of *shenme* in postverbal positions. Y. Yang and Tsai (2019) finds out that the stress on a predicate verb and falling sentential intonation pattern provide clues about the attitudinal reading in transitive constructions. However, since MC does not allow manipulation of the lexical pitch accent on *shenme* 'what' itself to modify its interpretation, it mainly depends on sentential phonological features such as stress locus and sentential intonation pattern. This shows a clear contrast between Japanese which allows manipulation of lexical pitch accent on *nani* 'what' to disambiguate its interpretation.

Nakabayashi (2021) also points out that the speaker's emotion does not affect the entire sentential rising/falling intonation pattern in Japanese, but the lengthened articulation duration is the crucial cue to judge the unpleasant emotion (p.73-74). However, since the analysis in Nakabayashi (2008, 2021) only aims at the articulation of single lexical items, it is not tenable to allege that rising/falling sentential intonation pattern does not affect the interpretation of the speaker's attitude.

An anonymous reviewer points out that in Kansai dialect *nani* originally employs [low-rising] pitch accent, therefore there is no difference between [high-low] and [low-rising] *nani*. As this paper aims at revealing usage of WHAT in Kanto dialect, the pitch accent in Kansai dialect is not in the scope of this study. However, it is important to mention that some informants whose first language is Japanese also argue that pitch accent modification on *nani* does not apply to Kansai dialect. This implies that Kanto/Kansai dialects employ different strategies for disambiguating information-seeking vs. negative attitudinal usage of *nani*. Future studies should include a comparison between these two dialects.

An anonymous reviewer also points out that the pitch contour modification on single lexical items in Nakabayashi (2008, 2021) is not identical to lexical pitch accent modification on *nani*. In other words, what Nakabayashi (2008, 2021) investigate is not a lexical item, but a sentence consists of one word. Therefore, it is not identical to the lexical pitch accent modification on *nani*. The author admits the reviewer's argument that what is observed in Nakabayashi (2008, 2021) is not a simple lexical pitch accent modification, but sentential intonation pattern modification. The author hypothesizes that LR *nani* is also possibly involved with the modification of the sentential intonation pattern. Though the

lexical pitch accent modification on *nani* is most obvious, other phonological features such as stress locus, duration of articulation and falling/rising intonation pattern can also be nonidentical to HL *nani*. To investigate these phonological issues, as the author discusses in §5, an acoustic phonetic experiment should be implemented.

In addition, informants whose first language is MC intuitively argue that the pitch contour on *shenme* ‘what’ with negative attitudinal readings is not identical to information-seeking *shenme* ‘what’. Therefore, to probe the relationship between lexical pitch accent and pragmatic implicature, a phonological experiment should be implemented in future studies.

### 4.3. Summary

To denote the speaker’s negative attitude, both Japanese and MC employ what-like wh-items: *nani* and *shenme*. In both languages, the interpretation of *nani/shenme* mainly depends on their syntactic distribution. L-SHENME (postverbal negative attitudinal *shenme*) and *nani-o* ‘what-ACC’ are located in the surface object position; H-SHENME (sentence-initial negative attitudinal *shenme*) and *nani-ga* (what-NOM) are located in the surface position higher than the grammatical subject.

In the case of L-SHENME and *nani-o*, they render similar negative attitudinal readings with negative deontic modality markers. In transitive constructions, disambiguating processes of Japanese and MC are different. Japanese employs direct object addition and lexical pitch accent modification. These disambiguation systems in Japanese are distinct from ones in MC observed in Y. Yang and Tsai (2019) which mainly depend on the locus of stress and the sentential intonation pattern.

In the case of H-SHENME and *nani-ga*, the refutatory attitude with implicit negative epistemic modality is identical. To express the negative attitude in MC H-SHENME, the author argues that the declarative clause type is more appropriate than the interrogative ones. This reflects the fact that H-SHENME in MC is semantically not interrogative anymore. The appropriateness of using declarative clauses in Japanese supports the argument in B. C. Yang (2021) that H-SHENME sentences are no longer interrogatives.

## 5. Conclusion

### 5.1. Negative Attitudinal WHATs in Japanese and MC

This study revealed that Japanese also has specific forms which correspond to L-SHENME and H-SHENME in MC.

Both Japanese and MC employ adjunct what (i.e., WHAT): *nani* and *shenme* to denote the speaker’s negative attitude. L-SHENME (postverbal *shenme*) and *nani-o* ‘what-ACC’ appear in the surface object position and render the speaker’s negative attitude towards the interlocutor with implicit negative deontic modality markers.

H-SHENME (sentence-initial *shenme*) and *nani-ga* ‘what-NOM’ are located in a position higher than the grammatical subject. Both of them contain a direct quotation of the utterance made by the interlocutor and render the speaker’s refutatory attitude with implicit negative epistemic modality markers. Japanese should employ a declarative clause *nani-ga* [quote] *-tte/da!* to denote the refutatory attitude in question. This observation supports the argument that H-SHENME in MC is not interrogative.

## 5.2. Disambiguating Strategies

L-SHENME and *nani-o* 'what-ACC' exhibit different disambiguating strategies in transitive constructions. In MC, the locus of stress and sentential intonation pattern are found to be the crucial clues to disambiguate information-seeking question/negative attitudinal readings.

In this study, the author points out that adding a direct object can disambiguate these readings in Japanese. This derives from one of the Japanese characteristics that allow multiple objects in one sentence.

Besides, employing *nani* with [low-rising]: LR *nani* is also a putative marker to exclude ordinary information-seeking question readings and to express the speaker's negative attitude. The author posits that the aggressive interpretation of LR *nani* is related to the pragmatic implicature of lexical items with [low-rising] pitch accent. As Nakabayashi (2008) reports, lexical items with [low-rising] pitch accent make Japanese native speakers perceive the interlocutor as unpleasant or surprised. This general phonological rule may affect the construal of *nani*.

In short, though postverbal *shenme* 'what' and *nani-o* 'what-ACC'; sentence-initial *shenme* 'what' and *nani-ga* 'what-NOM' share quite similar properties, they are not completely identical: their disambiguating processes reflect the different case marking/phonological systems between Japanese and MC.

## 5.3. Problems

First, the pitch contour of LR *nani* should be investigated through an acoustic phonetic experiment. Though specific phonological/phonetic characteristics of *nani* are not in the scope of this study, an experiment should be implemented to test its pitch contour and pragmatic implicature. This would allow us to directly compare the phonological clues for separating information-seeking/negative attitudinal readings.

Second, from the formal linguistic point of view, the specific syntactic distribution of *nani-o* 'what-ACC' and *nani-ga* 'what-NOM' should be specified. As the goal of this study is to describe Japanese linguistic expressions which correspond to MC non-canonical *shenme* 'what', their specific syntactic distributions have not been discussed thoroughly.

Third, since WHAT: negative attitudinal use of wh-items is a relatively new field, language teaching materials tend not to include them. However, as WHATs are involved with a strong aggressive attitude with implicit negative modality markers toward interlocutors, it is essential for advanced language learners to comprehend the negative attitudinal use to avoid using them in an inappropriate context. Thus, teaching materials should cover WHAT use of *nani* and *shenme*. To develop such teaching materials, the author believes that the contrastive approach implemented in this paper will be helpful for both L1 Japanese L2 Chinese, and L1 Chinese L2 Japanese learners. Exhibiting the similarity and difference of the negative attitudinal adjunct use of WHAT between the learner's first language and target language would be helpful for advanced learners. Future studies should include language acquisition investigations to test how language learners acquire the attitudinal adjunct what: WHATs in their target languages for providing an effective teaching method.

## References

- Chao, Yuen Ren (1968). *A grammar of spoken Chinese*. Univ of California Press.
- Cheng, L. L. (2021). “What-as-why sentences in Cantonese”. In: *Studies in Generative Grammar*. Ed. by G. Soare. Berlin: De Gruyter Mouton, pp. 219–246.
- Endo, Yoshio (2015). “Two ReasonPs: What are\*(n’t) you coming to the United States for?” In: *Beyond functional sequences: The cartography of syntactic structures Oxford studies in comparative syntax*. Ed. by Ur Shlonsky. 10th ed. Oxford: Oxford University Press, pp. 220–231.
- Harada, Shin-Ichi (1986). “Counter equi-NP deletion”. In: *Journal of Japanese Linguistics* 11.1-2, pp. 157–202.
- Kuroda, Shige-Yuki (1988). “Whether we agree or not: A comparative syntax of English and Japanese”. In: *Linguisticae Investigationes* 12.1, pp. 1–47.
- Lau, Seng-Hian and Wei-Tien Dylan Tsai (2020). “A comparative study of how and why in Taiwan Southern Min and Mandarin Chinese”. In: *Language and Linguistics* 21.2, pp. 254–284.
- Lu, Shu xiang and Lan sheng Jiang (1985). *Jindai Hanyu Zhidaici*. Academia Press.
- Nakabayashi, Ritsuko (2008). “Onsei ni yoru kanjyouhousyutsu to sono onnkyouteki tokutyou ni tsuite toikaesigimonnbun ni arawareru iya, odoroki no kanjyou o rei to shite. [A Study on the Expression of Emotion by Phonetic Means -in Case of Unpleasant and Surprisal in On Word Questions]”. In: *Studia linguistica* 21, pp. 121–142.
- Nakabayashi, Ritsuko (2021). “Acoustic Characteristics of Emotional Speech in Japanese: Focusing on the Effects of Accent Type and the Number of Morae”. In: *Bulletin of Aichi Shukutoku University Faculty of Communication Studies* 11, pp. 59–67.
- Obenauer, Hans (2006). “Special interrogatives-Left Periphery, Wh-Doubling, and (apparently) optional elements”. In: *Amsterdam Studies in the Theory and History of Linguistic Science Series 4* 278, pp. 247–173.
- Ochi, Masao (2004). “How come and other adjunct wh-phrases: A cross-linguistic perspective”. In: *Language and Linguistics* 5.1, pp. 29–57.
- Pan, Victor Junnan (2014). “Deriving special questions in Mandarin Chinese: A comparative study”. In: *Comparative Syntax: Proceedings of the 16th Seoul International Conference on Generative Grammar*. Ed. by Jong-Un Park and Il-Jae Lee. The Korean Generative Grammar Circle, pp. 349–368.
- Pan, Victor Junnan (2015b). “Mandarin peripheral construals at the syntax-discourse interface”. In: *The Linguistic Review* 32.4, pp. 819–868.
- Saito, Mamoru (2016). “(A) Case for labeling: labeling in languages without -feature agreement”. In: *The Linguistic Review* 33.1, pp. 129–175.
- Saruwatari, Asuka (2016). “Wh-NP Rhetorical Questions in Japanese and Chinese”. In: *Gengo bunka kenkyu*, pp. 21–30.
- Shao, Jingmin and xiufeng Zhao (1989). “Shenme fei yiwen yongfa yanjiu [A Study on the non-interrogative usage of ‘what’]”. In: *Yuyan Jiaoxue yu Yanjiu* 1, pp. 26–40.
- Tsai, Wei-Tien Dylan (2011). “Cong ‘Zhe Hua Cong He Shuo Qi’ Shuo Qi [Speaking from ‘where does this come from?’]”. In: *Yuyanxue Luncong* 43, pp. 194–208.
- Tsai, Wei-Tien Dylan (2021). “On Applicative Why-questions in Chinese”. In: *Why is ‘Why’ Unique? Its Syntactic and Semantic Properties*. Ed. by Gabriela Soare. Berlin: De Gruyter Mouton, pp. 197–218.
- Tsai, Wei-Tien Dylan (to appear). “On Embedding Force and Attitude: Evidence from Chinese and Vietnamese non-canonical wh-expressions”. In: *In Non-interrogative Subordinate Wh-clauses*. Ed. by Umbach Lukasz Jedrzejowski Carla. Oxford: Oxford University Press.
- Yamadera, Yuki (2010). “Wh fukashi kobun ‘naniga konohonga omoshiroino [The wh-adjunct construction, ‘why do you say that this book is interesting? (It is not.)’]” In: *Nihongo Bunpo* 10-2, pp. 160–176.
- Yang, Barry C.Y (2021). “Two Types of Peripheral Adjunct WHATs”. In: *Studies in Linguistics* 47, pp. 61–92.

- Yang, Barry C.Y. (to appear). "Revisiting Sentence-final Adjunct WHAT". In: *Studies in Linguistics*.
- Yang, Yang and Wei-Tien Dylan Tsai (2019). "Nianli Yizhuan de Yunluyufa ji Shiyanyanjiu [An Experimental Study on the Prosodic Syntax of Force Shift]". In: *Chinese Teaching in the World* 1, pp. 36–46.

#### List of abbreviations

ACC	Accusative
C	Complementizer
COP	Copula
DAT	Dative
DEON	Deontic
EPIS	Epistemic
EVI	Evidential
GEN	Genitive
MOD	Modality
NEG	Negation
PERF	Perfective
PROG	Progressive
PRES	Present
Q	Question
QUO	Quotation
TOP	Topic