

A new analysis of ‘A-not-A questions’ in Mandarin Chinese

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Abstract

The analysis of the so-called ‘A-not-A’ questions in Mandarin Chinese, where negation occurs between two identical elements at the VP edge, has basically remained the same since C.-T. James Huang (1982). The entire sequence ‘A-not-A’ is presented as the spell-out of an abstract polar question morpheme [Q] to be obtained via a reduplication rule. However, the issue has never been addressed how under this scenario the correct choice can be made between the negation markers *bù* ‘not’ and *méi* (*yǒu*) ‘not have’ both featuring in ‘A-not-A’ questions, given that phonological rules have no access to the syntactic and semantic information required here. A new approach is therefore necessary. Implementing the bottom-to-top derivation in syntax advocated by the Minimalist Program since Chomsky (1995), the complete verbal projection *including* the appropriate negation is built first and only subsequently merged with [Q]. The reduplication process then applies to realize the spell-out of [Q] and copies the element ‘A’ immediately below negation. Accordingly, negation itself is *not* a result of reduplication. This is a desirable consequence, because the choice between the two negation markers involves the same state vs non-state dichotomy that is crucial for finiteness in Mandarin Chinese (cf. Paul and Yan 2026).

1. Introduction

The so-called ‘A-not-A’ questions in Mandarin Chinese are a type of yes/no questions where negation, i.e. *bù* ‘not’ or *méi* (*yǒu*) ‘not have’, occurs between two identical instances of e.g. the verb. (For the full paradigm of yes/no questions involving the juxtaposition of an affirmation and its negated counterpart, cf. section 4.1 below.)

- (1) a. Tā xǐhuān bù xǐhuān shùxué?¹
3SG like NEG like mathematics
‘Does she like mathematics?’
b. Tā xǐ- bù xǐhuān shùxué?
3SG like NEG like mathematics
‘Does she like mathematics?’
- (2) a. Tāmen tāolùn méi tāolùn zhè ge wèntí?
3PL discuss NEG discuss this CL question
‘Have they discussed this question?’
b. Tāmen tāo- méi tāolùn zhè ge wèntí?
3PL discuss NEG discuss this CL question
‘Have they discussed this question?’

Importantly, the first instance of ‘A’ can also be the subpart of a word, e.g. *xǐ-* ‘like’ and *tāo-* ‘discuss’ in (1b) and (2b). Given that a syntactic rule must respect lexical integrity and cannot produce sentences such as (1b) and (2b), C.-T. James Huang (1982) proposed to derive ‘A-not-A’ questions from simplex sentences with an abstract polar question morpheme [Q], whose spell-out ‘A-not-A’ is the result of a phonological reduplication rule. This analysis has practically remained unchallenged up to and including C.-T. James Huang, Y.-H. Audrey Li, and Yafei Li (2009) (henceforth HLL 2009) and basically still uses Chomsky’s (1981) *Government and Binding* framework.

However, as is evident from a plethora of data and observations over the last sixty years, the choice of the two negation markers *bù* ‘not’ and *méi* (*yǒu*) ‘not have’ is determined by syntactic and semantic

¹ The following abbreviations are used in glossing the Chinese examples: CL classifier; DUR durative aspect; EXP experiential aspect; INTERR interrogative C head; LOWC low C head; NEG negation; PERF perfective aspect; PL plural; PROGR progressive aspect; SG singular; SUB subordinator.

factors, which by definition are not accessible to reduplication rules of a phonological nature. More precisely, Paul and Yan (2026) argue that the same state vs non-state dichotomy that underlies the system of tense and finiteness in Mandarin Chinese likewise governs the choice between *bù* ‘not’ and *méi* (*yǒu*) ‘not have’. A radically new approach to ‘A-not-A’ questions is therefore necessary.

Taking up this challenge, the present article develops a completely new analysis, implementing the bottom-to-top derivation in syntax advocated by the *Minimalist Program* since Chomsky (1995). The complete verbal projection *including* the appropriate negation *bù* ‘not’ or *méi* (*yǒu*) ‘not have’ is built first and only subsequently merged with the abstract polar question morpheme [Q]. The reduplication process then applies to realize the spell-out of [Q] by copying the element ‘A’ below negation. It is thus only the first instance of ‘A’ that realizes [Q] and negation is *not* part of the reduplicated string, a welcome result.

The article is organized as follows. Section 2 on the specialness of states and section 3 on the negation markers *bù* ‘not’ and *méi* (*yǒu*) ‘not have’, respectively, provide the necessary background and summarize the major results from Paul and Ramchand (2023) and Paul and Yan (2026) concerning finiteness and negation in Mandarin Chinese. Section 4 presents the current analysis of A-not-A questions as resulting from reduplication (as first proposed in C.-T. James Huang 1982), points out its shortcomings and demonstrates how these can be avoided by adopting the bottom-to-top derivation of the *Minimalist Program*. Section 5 concludes the article.

2. The specialness of states

The semantic properties of states that distinguish them temporally from the other aktionsart categories (i.e. activities, accomplishments and achievements) is the fact that a state can have a moment as its temporal parameter (after Taylor 1977, see also Hallman 2009). If a state is true at an interval, then it is true at every subinterval of that interval, including at each moment. Mandarin Chinese reflects this specialness of states: only states, i.e. adjectives (cf. (3)), stative verbs (cf. (4ab)) and predicates headed by modal auxiliaries (cf. (5ab)) are acceptable as *bare* predicates in a finite root sentence, i.e. in a sentence that can be asserted independently.

- (3) Tā fēicháng lèi / gāoxìng / jǔsàng.
3SG extremely tired / happy / frustrated
‘She is very tired/happy/frustrated.’
- (4) a. Wǒ zhīdào zhè jiàn shì / rènshí Lǐ lǎoshī.
1SG know this CL matter / know Li teacher
‘I know about this matter/know teacher Li.’
b. Tā xǐhuān shùxué.
3SG like mathematics
‘She likes mathematics.’
- (5) a. Tāmen néng {yóuyǒng / pǎo bù}.
3PL can swim / run step
‘They can swim/run.’
b. Wǒ {děi / xiǎng} {zǒu / xiūxi}.²
1SG must / want go / rest
‘I must/want to {go/have a rest}.’

To my knowledge, the observations concerning the well-formedness of (3)–(5) illustrating the specialness of states go back to Kong Lingda (1994) and Huang Nansong (1994). These two authors also note the contrast with the sentences (6a–c) and (7) below featuring non-stative predicates, i.e. activities (6a),

² It is well-established cross-linguistically that modal constructions are stative (cf. Ramchand 2018, to appear and references therein; also cf. Li and Thompson 1981:422 for the stative nature of auxiliaries in Chinese).

accomplishments (6b) and achievements (6c). They all require aspect markers (6a–c) or a sentence-final particle (7) in order to be able to function as matrix predicates with a non-habitual, i.e. episodic reading:³

- (6) a. Tā *(zài) {yóuyǒng / pǎo bù / pào chá / chī fàn / xǐ yīfu}.
 3SG *PROGR* swim / run step / brew tea / eat food / wash clothes
 ‘He is swimming/running/brewing tea/eating/doing the laundry.’
 (based on Sun 2014:54)
- b. Wǒ song *(-guo) tā liwù. (cf. Huang Nansong 1994:443, (18)–(20))
 1SG give -EXP 3SG gift
 ‘I gave him presents (before).’
- c. Tāmen lí *(-le) hūn. (cf. Kong Lingda 1994:437)
 3SG separate-PERF marriage
 ‘They divorced.’
- (7) Tā fā shāo *(le).⁴
 3SG issue fever LOWC
 ‘He has fever.’

If a habitual reading as in (8a–d) is possible (for which the presence of an appropriate adverb is often required), activities and accomplishments (cf. (8a–c)) as well as achievements (cf. (8d)) behave on a par with states and are then acceptable as root predicates *without* any aspect marking:

- (8) a. Tā jīngcháng xǐ yīfu. (Kong Lingda 1994:436)
 3SG regularly wash clothes
 ‘He regularly does the laundry.’
- b. Tā yī-tiān-dào-wǎn kàn diànshì / dǎ yóuxì.
 3SG 1-day-to-late watch TV / strike video.game
 ‘He watches TV/plays video games all day long.’
- c. Tā měi tiān dōu xiě xìn / dǎ diànhuà / jìn chéng / pǎo bù.
 3SG every day all write letter / strike phone / enter city / run step
 ‘She writes letters/calls/goes downtown/runs every day.’
- d. Jīnglǐ měi tiān bā diǎn dào. (Sun Hongyuan 2014:169,
 manager every day 8 o’clock arrive (12); slightly changed)
 ‘The manager arrives at 8 o’clock every day.’

For states (cf. (9a)), including habituals (cf. (9b–d)), a past temporal adverb is sufficient for a past tense reading, in contrast to non-states which require aspect marking (cf. (6bc) above). For the future tense, a future auxiliary (e.g. *huì* ‘will’) is required, for states (cf. (10a)) and non-states (cf. (10b)) (cf. Sun 2014):

- (9) a. Tā zuótiān fēicháng lèi / gāoxìng / jǔsàng.
 3SG yesterday extremely tired / happy / frustrated
 ‘She was very tired/happy/frustrated yesterday.’
- b. Tā yǐqián xǐhuān shùxué / rènshí hěn duō yǔyánxuéjiā.
 3SG before like mathematics / know very much linguist
 ‘She liked mathematics/knew many linguists in the past.’

³ The observations concerning the contrast between states and non-states illustrated in (3)–(5) vs (6a–d) are robust and also figure in the studies on tense and finiteness by Sun Hongyuan (2014), Sybesma (2019) and He Yuyin (2020).

⁴ Sentence-final particles such as *le*, i.e. the lowest C heads in the Chinese split CP ‘LowC < Force < Attitude’ play an important role with respect to finiteness. Cf. Paul (2017b; 2018), Ramchand (2020), Paul and Ramchand (2023).

- c. Tā yǐqián chōu yān / hē jiǔ.
3SG before inhale cigarette / drink alcohol
‘He used to smoke/drink before.’
- d. Nà shíhòu jīnglǐ chángcháng bā diǎn dào.
that time manager normally 8 o'clock arrive
‘At that time, the manager used to arrive at 8 o’clock.’
- (10) a. Tā míngtiān *(huì) fēicháng lèi / gāoxìng / jǔsàng.
3SG yesterday will extremely tired / happy / frustrated
‘She will be very tired/happy/frustrated tomorrow.’
(Sun Hongyuan 2014:165, (7a), slightly changed)
- b. Zhōngguó duì míngtiān *(huì) {yíng / shū}. (based on Sun 2014:218,
China team tomorrow will win / lose (81a–c))
‘The Chinese team will win/lose tomorrow.’

To summarize, root clauses with states (including habituals and auxiliaries) as *bare* predicates (cf. (3)–(5), (8a–d) above) can be asserted independently, i.e. are finite, and have a default present tense interpretation.⁵ This is because in the absence of any overt marking, the relation between the eventuality and the speech moment NOW is one of identity. Non-states, by contrast, need overt marking (aspect markers or low C heads). While the relevant data themselves are known, the state vs non-state dichotomy has so far not been acknowledged as the overarching generalization underlying the system of tense and finiteness in Chinese, nor has its importance for the syntax and semantics of negation in Chinese been recognized, a point to be demonstrated in the following section.

3. Negation in Mandarin Chinese

Using the rich array of observations in the literature over the past sixty years, Paul and Yan (2026) provide a new analysis of the two negation markers *bù* ‘not’ and *méi* (*yǒu*) ‘not have’, in the light of the dichotomy state vs non-state underlying the system of finiteness in Mandarin Chinese (cf. Ramchand 2020, to appear; Paul and Ramchand 2023).

3.1 The negation *bù* ‘not’

Bù ‘not’ negates states, i.e. adjectives (11) and stative verbs (12), including habituals (13) and predicates headed by modal auxiliaries (14), in the present (default) and past tense. *Méi* (*yǒu*) ‘not have’ is excluded.

- (11) Tā (zuótiān) {bù /*méi (yǒu)} lèi / gāoxìng / jǔsàng.
3SG yesterday NEG / NEG have tired / happy / frustrated
‘She is(/was) not tired/happy/frustrated (yesterday).’
- (12) Tā (yǐqián) {bù /*méi (yǒu)} rènshí Lǐ lǎoshī / {bù /*méi (yǒu)} xǐhuān shùxué.
3SG before NEG/NEG have know Li teacher / NEG/NEG have like mathematics
‘She doesn’t(/didn’t) know Prof. Li (before) / doesn’t(/didn’t) like math (before).’
- (13) Tā (yǐqián) bù chōu yān / bù hē píjiǔ.
3SG before NEG inhale cigarette / NEG drink beer
‘She doesn’t(/didn’t) smoke (before) // doesn’t(/didn’t) drink beer (before).’
- (14) Tā (yǐqián) bù huì shuō déwén.
3SG before NEG can speak German
‘She cannot(/couldn’t) speak German (before).’

⁵ The different factors determining the temporal interpretation in Chinese shown to be at work in (6)–(9) above confirm that *tense* is the relevant factor for finiteness in Chinese, notwithstanding the lack of *overt* tense morphology (cf. Sybesma 2007, Yen-Hui Audrey Li 2017, He Yuyin 2020, C.-T. James Huang 2022).

By contrast, when negating *non*-states, *bù* ‘not’ introduces a covert future/volitional modal ‘will/would not, do/did not want to’, in the present, past or future. This covert modal was postulated by Huang (1988) to capture the well-known interpretational possibilities (in addition to the habitual) shown in (15)–(17):

- (15) a. Tāmen *bù* *shuō* *huà*. (See Gebauer 1980: 187, (18), (19))
 3PL NEG talk word
 ‘They do not (intend to) talk. / They will not talk.’
 b. Tāmen *yǐqián* *bù* *shuō* *huà*.
 3PL before NEG talk word
 ‘Before, they did not (want to) talk to each other.’
- (16) Tā *bù* *hē* *jiǔ*. (Li and Thompson 1981:423, (40), (42))
 3SG NEG drink wine
 ‘S/he doesn’t drink wine.’
 ‘S/he refuses/refused to drink wine.’⁶
- (17) Wǒ *bù* *mài* *nèi* *ge* *píngzi*.
 1SG NEG sell that CL vase
 ‘I’m not selling that vase.’
 ‘I won’t/wouldn’t sell that vase.’

See Gebauer (1980) notes that (15a) can have three different interpretations: habitual (her “statement of fact”), volitional/intentional and future, the latter being absent from the past tense sentence (15b). As mentioned by Li and Thompson (1981), a habitual reading as in their (16) is not always available, in which case only the refusal interpretation (past and present) obtains (cf. (17)). Teng Shou-hsin (1974b:89) summarizes this as follows: “*Bù* – negation of action verbs, carries the meaning of ‘refusal’ (will/would not) or ‘generic/habitual’.”

Similar examples abound in the literature, confirming the possibility of a present *and* past tense interpretation with *bù* ‘not’ for states and the availability of the (present and past tense) habitual reading for non-states. While Huang (1988) captured the future/volitional interpretations by postulating a covert future/volitional modal, he did, however, not mention that they are only observed for *bù* with *non*-stative verbs under the control of the agent. When negating habituals, by contrast, *bù* ‘not’ is a case of “plain” negation (i.e. without any covert modal), because habituals pattern with states.

Given these different interpretational possibilities depending on the aktionsart of the predicate in question, an adverbial status of *bù* ‘not’ seems implausible. This is confirmed by the regular possibility of double negation with auxiliaries (18a), for which no adverbial equivalent (18b) exists:

- (18) a. Tā *bù* *huì* *bù* *huídá*.
 3SG NEG will NEG answer
 ‘S/he will not not answer.’ => ‘S/he will (certainly) answer’.
 b. *Tā *yě* *huì* *yě* *huídá*.
 3SG also will also answer

As a consequence, Paul and Yan (2026) propose an analysis of *bù* ‘not’ as a functional head Neg^o.

⁶ For conveying the episodic meaning ‘he didn’t drink wine’, *méi* (*yǒu*) ‘not have’ has to be used (cf. section 3.2):

- (i) Tā *méi* (*yǒu*) *hē* *jiǔ*.
 3SG NEG have drink wine
 ‘He didn’t drink wine/has not drunk wine.’

3.2 The negation *méi* (yǒu) ‘not have’

Méi (yǒu) ‘not have’ is either the negated transitive verb ‘have’ selecting an object NP (cf. (19a)) or an auxiliary when preceding and negating a verbal projection as in (19bc) (cf. already Zhu Dexi 1982 and Lü Shuxiang 1985).

- (19) a. Tāmen (dāngshí) méi (yǒu) háizi / gōngzuò.
 3PL that.time NEG have child / work
 ‘They don’t/(didn’t) have children/work (at that time).’
- b. Tāmen méi (yǒu) zuò zuòyè / yánjiū zhè ge wèntí.
 3PL NEG have make homework / research this CL problem
 ‘They haven’t done their homework. / They didn’t do their homework.’
 ‘They haven’t researched this problem./ They didn’t research this problem.’
- c. Tāmen méi (yǒu) lái / dào Běijīng.
 3PL NEG have come / arrive Beijing
 ‘They haven’t come. They didn’t come.’
 ‘They haven’t arrived at Beijing. / They didn’t arrive at Beijing.’

In both cases, *méi* ‘not’ is acceptable without *yǒu* ‘have’. Paul and Yan (2026) therefore posit an underlying *yǒu* ‘have’ which may remain covert or be spelt out, as indicated by enclosing it within parentheses. Note that in the spoken language *méi* is strongly preferred (also cf. Lü Shuxiang 2000:383). However, when the speaker wants to emphasize negation, then *méi yǒu* ‘not have’ is used:

- (20) Wǒmen zhèng zài zuò women de qiánrén
 1PL just PROGR do 1PL SUB predecessor
 cónglái méi yǒu zuò-guo de [...] shìyè.
 ever NEG have do-EXP SUB work
 ‘We are just doing the things our predecessors have never done.’
 (Zhang Huinü 2002:64, (43), slightly modified; glosses and translation added)

Given the presence of the adverb *cónglái* ‘ever’ here, it is the latter that receives the primary stress, with secondary stress on *méi*.

The traditional analysis of *méi* (yǒu) ‘not have’ as an auxiliary is confirmed by its allowing for VP ellipsis (cf. (21b), on a par with auxiliaries such as *huì* ‘will’ in (21a)):

- (21) a. Zhāngsān huì lái, Lǐsì yě huì.
 Zhangsan will come Lisi also will
 Zhangsan will come, Lisi will, too.’
- b. Zhāngsān méi (yǒu) lái, Lǐsì yě méi yǒu.
 3PL NEG have come Lisi also NEG have
 ‘Zhangsan didn’t/hasn’t come, Lisi didn’t/hasn’t, either.’⁷

As illustrated in the preceding examples, *méi* (yǒu) ‘not have’ negates non-states in the past. By contrast, when negating “derived states” (cf. Paul and Ramchand 2023), i.e. predicates marked with the progressive aspect *zài* (‘zài V’) or the durative aspect *-zhe* (‘V-zhe’), it yields a *present* or past tense interpretation (cf. a.o. Teng Shou-hsin 1973; 1974a, Fan Jiyang 1982, Paul and Yan 2024). Note that *bù* ‘not’ is excluded here:

⁷ The attentive reader will have noticed that in (21b), *yǒu* ‘have’ is not enclosed within parentheses, i.e. it is not optional here. This is due to the well-known constraint reported in all grammar manuals (cf. among others Lü Shuxiang 2000:383) that in sentence-final position (as in (21b)) and when occurring alone as an answer (cf. (i) below), *yǒu* ‘have’ needs to be spelt out:

- (i) Nǐ yǒu háizi ma? Méi *(yǒu).
 2SG have child INTERR NEG have
 ‘Do you have children? I don’t.’

- (22) a. Nimen wèishénme {méi /*bù} zài zuò zuòyè?
 2PL why NEG /NEG PROGR do homework
 ‘Why aren’t you doing your homework?’
- b. Wǒ huí jiā de shíhou,
 1SG return home SUB time
 tā {méi (yǒu) /*bù} zài xǐ pánzi, tā zài xiūxi.
 3SG NEG have /NEG PROGR wash plate 3SG PROGR rest
 ‘When I came home, he wasn’t doing the dishes, he was resting.’
- c. Hòumén (gāngcái) {méi (yǒu) /*bù} suǒ-zhe.
 back.door a.moment.ago NEG have /NEG lock-DUR
 ‘The back door is(/was) not locked (a moment ago).’

This is parallel with lexical states negated by *bù* ‘not’, where the present tense is the default and where a past temporal adverb likewise suffices to induce a past tense interpretation.⁸

To sum up, neither *bù* ‘not’ nor *méi yǒu* ‘not have’ are associated with a fixed temporal value. Instead, the aktionsart of the predicate needs to be taken into account for determining the choice between *bù* ‘not’ and *méi yǒu* ‘not have’ and for calculating the relevant interpretation. All this cannot be achieved by a morpho-phonological reduplication rule, as postulated by the current analysis of ‘A-not-A’ questions, because morpho-phonological rules by definition have no access to the type of semantic information required here. Paul and Yan’s (2026) analysis of negation in Chinese thus calls for a radically new approach to ‘A-not-A’ questions.

4. A new analysis of ‘A-not-A’ questions

Although ‘A-not-A’ questions are still a much debated topic in Chinese syntax,⁹ their analysis has basically remained the same since C.-T. James Huang (1982), including his subsequent works (cf. Huang 1987; 1988; 1991 and his chapter 7 in HLL 2009) as well as the article by Hagstrom (2006) basically adopting Huang’s view. Section 4.1 clears the ground and follows Huang (1991) in defining the scope of phenomena falling under the term ‘A-not-A’ question. Section 4.2 presents Huang’s analysis of ‘A-not-A’ questions in detail and points out its shortcomings. Section 4.3 then breaks with the tradition of couching the analysis within Chomsky’s (1981) *Government and Binding* framework and introduces a new proposal implementing the bottom-to-top derivation advocated by the Minimalist Program (cf. Chomsky 1995 and subsequent work). This new analysis can finally account for a number of long-known observations in the literature that have so far remained unexplained (cf. section 4.4).

4.1. Clearing the ground

Huang (1991) argues in great detail that the yes/no questions involving the juxtaposition of an affirmation and its negative counterpart illustrated in (23a–e) below cannot be given a uniform analysis, but involve three different types. For reasons of space, I concentrate on the resulting classification and refer the reader to Huang’s work for relevant evidence.¹⁰

⁸ The parallel with states is confirmed by the acceptability of derived states as autonomous predicates in root sentences, i.e. in finite clauses. Cf. Paul and Ramchand (2023), Paul and Yan (2024) for detailed discussion.

⁹ In the most recent study, Tsai and Yang (2026) (posted on lingbuzz in 2025 after completion of the present article), the ‘A-not-A’ question with the copula *shì* ‘be’ (*shì bù shì* ‘be not be’ = ‘is it the case [(that)...]?’) as the matrix verb selecting a clausal complement (which can feature auxiliaries and all kinds of adjuncts allowed TP-internally) is presented as a special case (“outer” ‘A-not-A’ question), an unwarranted move (cf. Paul and Whitman 2008). For the same observations holding for (what they call “inner”) ‘A-not-A’ questions with other verbs also hold for *shì bù shì* ‘be not be’ here, such as the positioning of TP-internal adverbs below the subject and preceding *shì* ‘be’ (cf. (43) below).

¹⁰ Huang (1991) is chosen, because the full paradigm of yes/no questions is very systematically presented and analysed here. Whenever possible, however, I discuss the most recent version in HLL (2009), to be supplemented with passages from earlier versions where necessary.

- (23) a. Tā xǐhuān zhè běn shū (háishi) tā bù xǐhuān zhè běn shū?
 3SG like this CL book or 3SG NEG like this CL book
 ‘Does he like this book or doesn’t he like this book?’
- b. Tā xǐhuān zhè běn shū bù xǐhuān zhè běn shū?
 3SG like this CL book NEG like this CL book
 ‘Does he like this book or doesn’t [he] like this book?’
- c. Tā xǐhuān bù xǐhuān zhè běn shū?
 3SG like NEG like this CL book
 ‘Does he like or doesn’t [he] like this book?’
- d. Tā xǐhuān zhè běn shū bù xǐhuān?
 3SG like this CL book NEG like
 ‘Does he like this book or doesn’t [he] like [it]?’
- d’. *Tā xǐhuān zhè běn shū bù xǐ-? (Huang 1991:311, (22b))
 3SG like this CL book NEG like
- e. Tā xǐ- bù- xǐhuān zhè běn shū?
 3SG like NEG like this CL book
 ‘Does he like or doesn’t [he] like this book?’
 (Huang 1991:306, (1a–e); tones added, my glosses, his translations)

The first cut is between disjunctive bi-clausal questions with *háishi* ‘or’ (23a) and the remaining cases, given that the former do not show any island constraints. The latter are further subdivided into two types depending on the position of the object. (23d) is derived by anaphoric ellipsis from a VP coordination. As for (23b), it may either involve a covert *háishi* ‘or’ and an empty subject and then patterns with (23a) or feature a full VP coordination without any ellipsis. (23c) and (23e) finally are derived by a reduplication rule from a simplex VP with the polar question morpheme [Q]. It is this type (called “true A-not-A question” in HLL 2009: 250) that I will refer to as ‘A-not-A’ question and examine in the remainder of the article. Its hallmark is the possibility for ‘A’ to be the subpart of a word, whereas this is ruled out for the process of anaphoric ellipsis applying to a VP coordination, as witnessed by the unacceptability of (23d’). The overall translation of (23a–e) as disjunctive questions by Huang is clearly inconsistent with his non-uniform analysis. In the following, examples from Huang are cited with his translations, but elsewhere ‘A-not-A’ questions in the strict sense defined here are translated as simplex yes/no questions (as already anticipated in (1) and (2) above).

4.2. The current analysis of ‘A-not-A’ questions

HLL (2009: 253) capture the interrogative nature of ‘A-not-A’ questions by postulating a functional head “Q[uestion]”: “The Q is realized *morphologically* in the following way: it first reduplicates *an initial portion of the VP constituent* and second turns the second of the identical parts into its *appropriate negative form*” (emphasis mine).

The part “initial portion of the VP” is important because besides verbs (cf. (23c), (23e) above) and adjectives (cf. (24ab)), adjunct PPs (cf. (25)) can likewise be the target of this reduplication rule:

- (24) a. Nǐ jīntiān gāoxìng bù gāoxìng? (HLL 2009:252, (66)–(67); tones added,
 you today happy not happy their glosses and translations)
 ‘Are you happy today or not?’
- b. Nǐ jīntiān gāo- bù gāoxìng?
 you today hap- not happy
 ‘Are you happy today or not?’
- (25) Nǐmèn míngtiān cóng bu cóng nán-zhàn chūfā?
 you tomorrow from not from south-station depart
 ‘Will you depart from South Station tomorrow or not?’

The fact that subparts of words such as *xǐ-* in (23e) and *gāo-* in (24b) can be reduplicated is the reason why the ‘A-not-A’ sequence is said to result from a morpho-phonological reduplication rule (cf. already Huang 1982:284).¹¹ The morpho-phonological nature of the reduplication rule also explains why the preposition *cóng* ‘from’ is acceptable on its own in (25), despite the well-known ban on preposition stranding in Chinese (cf. Huang 1982; Djamouri and Paul 1997; 2009 and references therein). A *syntactic* rule such as ellipsis must respect lexical integrity, i.e. it cannot affect subparts inside a word, and can therefore not produce the sequence in (23e) and (24b), nor can it strand a preposition as in (25).

Concerning the position of the ‘A-not-A’ sequence, it occurs below the subject (in SpecIP) and above the VP, viz. in an “interrogative *functional* head, located in the same position where one would find the *negation head* of a negative sentence, as follows:

[_{IP} NP [[_Q +A-not-A] [_{VP} V NP]]” (HLL 2009:253; emphasis mine)

(HLL’s tree (69) is presented as a bracketed structure without the lexical material. Note that they do not label the constituent consisting of the Q head and its VP complement.)

Putting aside the assumption mentioned in passing that negation is a functional head (an issue not addressed at all elsewhere in HLL 2009), transposed into Paul and Yan’s (2026) analysis this means that the realization of [Q] is to be situated in a projection below, i.e. distinct from IP/TP and above the extended verbal projection (as proposed for the negation markers *bù* ‘not’ and *méi (yǒu)* ‘not have’ in section 3 above). This is confirmed by the acceptability of adjunct NPs such as *jīntiān* ‘today’, *míngtiān* ‘tomorrow’ between the subject and the ‘A-not-A’ sequence in (24) and (25) above, thus excluding a Spec-head relation between the subject and the ‘A-not-A’ sequence.¹²

Importantly, we also have ‘A-not-A’ questions with the negation *méi (yǒu)* ‘not have’ required by non-stative verbs, where again it is possible to only reduplicate a subpart of the verb (i.e. *kàn-* ‘see’):

(26) Nǐ kàn(jiàn) méi kànjiàn Lǐsì? (HLL 2009:253, (70a); tones added,
you see not see Lisi their glosses and translation)
 ‘Did you see Lisi or not?’

In other words, negation in ‘A-not-A’ questions obeys the same syntactic and semantic constraints governing the distribution of *bù* ‘not’ and *méi (yǒu)* ‘not have’ in declarative contexts outlined above, and it is a “genuine” negation (as stated by C.-T. James Huang 1982:282). Accordingly, negation *cannot* be inserted by a morpho-phonological reduplication process that is by definition “blind” to information such as the verb’s aktionsart [+state] and does not need to respect word boundaries.

This is, however, exactly what has been postulated by C.-T. James Huang up to HLL (2009:253): “The Q [...] first reduplicates *an initial portion of the VP constituent* and second turns the second of the

¹¹ HLL (2009: 257) state that “the proposed reduplication is a morphological phenomenon”, it being “in the nature of a morphological process that it affects parts of a word”, hence my assigning it the hybrid status of a *morpho-phonological* rule. Cf. C.-T. James Huang (1984) for demonstrating the validity of the *Lexical Integrity Hypothesis* in Chinese.

¹² In C.-T. James Huang (1982; 1987; 1988; 1991), the ‘A-not-A’ sequence realizing [Q] still occurred in *Inflection*, thus incorrectly ruling out the acceptability of adverbs between the subject in SpecIP and [Q]. As argued for by Ernst (1994), the head *Inflection* in Mandarin Chinese always remains empty. This is confirmed by the acceptability between the subject and the highest head of the extended verbal projection of adverbs *qua* word class such as *háí* ‘still’, *yǐjīng* ‘already’, *yě* ‘also’. While the presence of the adjunct XPs in (24) and (25) precludes any Spec-head relation between the subject and the ‘A-not-A’ sequence, adjunct XPs on their own cannot serve as an absolute test for the position of the verb, because they can also occur below auxiliaries (cf. Paul 2017a and references therein):

(i) {Míngtiān} tā {míngtiān} huì {míngtiān} lái.
tomorrow 3SG tomorrow will tomorrow come
 ‘He will come tomorrow.’

By contrast, the acceptability of adverbs such as *dàodi* ‘in the end’ (cf. (43) below) unequivocally confirms the position of ‘A’ in a separate projection below TP and above negation in ‘A-not-A’ questions.

identical parts into its *appropriate negative form*. [...] What form the negative part will take depends on the aspectual property of the verbal element. Thus, if the verb is an accomplishment verb like *kànjiàn* ‘see’ [...] the negative would take the form *méi* (instead of *bù*) [...]” (emphasis mine). HLL (2009) gloss over this problem by invoking the “*appropriate negative form*” without realizing that a morpho-phonological rule can precisely *not* select the correct negation form, this being a task to be accomplished in syntax.¹³

Hagstrom (2006) suffers from the same problem: “[...] the A-not-A sequence is essentially a word formed morphologically by an abstract question morpheme [=NQ; WP] and a following predicate. [...] If NQ is indeed something like a VP-proclitic, [...] it simply reduplicates the word (or syllable) that it attaches to, with a negative morpheme *between* the copies.” (Hagstrom 2006:176, 177; emphasis mine).

In both HLL (2009) (adopting C.-T. James Huang’s previous work) and Hagstrom (2006), negation is assumed to be part of the reduplicated sequence. This creates the problem that the morpho-phonological process of reduplication, contrary to current theoretical assumptions, is supposed to have access to the syntactic and semantic information that is indispensable for choosing the correct negation form (*bù* ‘not’ or *méi* (*yǒu*) ‘not have’). Neither HLL (2009) nor Hagstrom (2006) seem to see this contradiction inherent to their scenario. This contradiction was already present in Huang (1982:282) who qualifies the reduplication rule as “syntactic or phonological”. The relevant passage is cited *in extenso* because it spells out the relevant assumptions in much more detail than is done in HLL (2009):

“[...] the [A-not-A] form is the result of some phonological rule of reduplication applying on the basis of some appropriate feature of modality. Note that the [A-not-A] form occurs exactly where one would find ‘not’ in an ordinary negative sentence, and furthermore that when the form occurs, no ‘not’ may appear elsewhere. *It is obvious then that the ‘not’ in [A-not-A] is the same ‘not’ as in negative sentences.* Suppose we say that both ‘not’ and [A-not-A] are realizations of some constituent indicating the affirmative/negative modality, the constituent AFF. If AFF is [+affirmative], then it is spelled out as zero, as in affirmative sentences. If it is [–affirmative], then it is spelled out as *bù* ‘not’. If it is not specified for [+affirmative], it is [+Q], quantificational ranging over [+affirmative] and [–affirmative]. For mnemonic purposes, let us use the feature [+A-not-A] instead of [+Q]. [...] the feature [+A-not-A] triggers a *syntactic or phonological rule* of reduplication having the following form:

A-not-A Reduplication

[+A-not-A] [_{VP} X Y] => [_{VP} [[X] [*bù* ‘not’ X]] Y]” (Huang 1982: 282, emphasis mine)

The following section proposes an alternative account of ‘A-not-A’ questions avoiding the pitfalls outlined above.

4.3. ‘A-not-A’ questions from a minimalist perspective

If one tries to transpose the existing observations for ‘A-not-A’ questions into the Minimalist Program (MP) (cf. Chomsky 1995 and subsequent work), something neither HLL (2009) nor Hagstrom (2006) attempt to do, it is possible to automatically obtain the appropriate negation for ‘A-not-A’ questions in *syntax*, on a par with Paul and Yan’s (2026) analysis for declarative negative contexts. The key to this is the basic way a syntactic structure is built in all the successive versions of the MP, i.e. from the bottom to the top.

Let us therefore assume that once the complete verbal projection (including adverbs and adjunct phrases known to occur *below* negation, cf. (31)–(35) below) has been built in an MP-conforming bottom-to-top derivation, it combines, i.e. merges with, the appropriate negation (*bù* ‘not’ or *méi* (*yǒu*) ‘not have’). The abstract “interrogative functional head” Q (as per HLL 2009:253) subsequently merges with this negated verbal projection. Then the phonological reduplication process applies in order to provide a spell-out of this abstract head and copies the element immediately below negation. Accordingly, negation itself is *not* produced by reduplication, hence not part of the reduplicated string, which is a desirable consequence.

¹³ McCawley (1994:180–1) already pointed out this contradiction. Following the logic of Huang’s analysis, negation in ‘A-not-A’ questions, being part of the reduplicated sequence, should in fact be an instance of “fake” negation, and constraints on negation observed in syntax should precisely not hold for ‘A-not-A’ questions.

Instead, reduplication only targets “an initial portion of the VP constituent” (as per HLL 2009:253), where this initial portion can be (the subpart, i.e. the first syllable of) a verb, an adjective, an adverb or the prepositional head of an adjunct PP. It is this copy ‘A’ (*without* negation) that now realizes Q and merges with the negated verbal projection.

Interestingly, as mentioned by Huang (1991:326), there exists another Q head, *kě*, in Mandarin Chinese which is in complementary distribution with the Q head realized by reduplication:

- (27) a. Nǐ *kě* gāoxìng? (Huang 1991:326–7, (86a–c))
 2SG Q happy
 ‘Are you happy?’
 b. Nǐ gāo- bù gāoxìng?
 2SG happy NEG happy
 ‘Are you happy?’
 c. *Nǐ *kě* gāo- bù gāoxìng?
 2SG Q happy NEG happy

Importantly, the Q head *kě* exclusively merges with a positive VP (28a) and thus contrasts with the Q head in ‘A-not-A’ questions spelt out as ‘A’ requiring a negated verbal projection (cf. (28b)).

- (28) a. Hángzhōu, nǐ *kě* [(*)méi] qù-guo)?
 Hangzhou 2SG Q NEG go-EXP
 ‘Hangzhou, have you been there?’
 b. Hángzhōu, nǐ qù [(*)méi] qù-guo)?
 Hangzhou 2SG go NEG go-EXP
 ‘Hangzhou, have you been there?’

Clearly, these two Q heads impose different selectional restrictions on their complement, while both yield yes/no questions. Adopting the perspective of the bottom-to-top derivation, this means that a negated verbal projection can in the next step merge with the Q head spelt out as (the reduplicated) ‘A’, but not with the Q head *kě*. Inversely, a positive verbal projection can only merge with the Q head *kě*, but not with the Q head ‘A’.¹⁴

Further evidence for the copy ‘A’ alone as the realization of the Q head, *without* negation, comes from the data set in (29) provided by reviewer 2:

- (29) a. Zhè ge pánzi {yuan bù yuan / fang bù fāng}?
 this CL plate round NEG round / square NEG square
 ‘Is this plate round/square?’
 b. Zhè ge pánzi {bù yuan / bù fāng}.
 this CL plate NEG round / NEG square
 ‘This plate is not round/not square.’
 c. *Zhè ge pánzi yuan / fāng.
 this CL plate round / square

¹⁴ Thanks to reviewer 2 for urging me to address this issue. For a proposal of how to capture selectional requirements in the MP, cf. Newman (2024; 2025). Cf. Zhu Dexi (1985; 1990) for a detailed discussion of yes/no questions in the form ‘V neg V O’ and ‘V O neg V’ for a representative sample of the Sinitic languages (“Chinese dialects” for him). The fact that some of them accept a combination of ‘A-not-A’ and the (equivalent of) the Q head *kě* shows that our analysis of Mandarin Chinese cannot be simply transposed. Instead, aspect and negation forms in each language must first be examined. Moreover, Zhu Dexi’s (1985; 1990) fine-grained observations concerning the different forms of negation and instances of morpho-phonological fusion involving negation make a uniform analysis of yes/no questions for all these languages implausible.

- d. Zhè ge pánzi (bù) shì [DP yuan / fang [D' [D° de] [NP Ø]].
this CL plate NEG be round / square SUB
 ‘This plate is (not) round/ is (not) square.’

Absolute adjectives such as *fāng* ‘square’ cannot function as predicates; instead, they are embedded in a DP (with a covert complement NP) which requires the copula *shì* ‘be’ when in a predicate function, as is the case for nominal projections in general (cf. Paul 2010; 2021). Scalar adjectives, by contrast, constitute autonomous predicates:

- (30) Tā fēicháng cōngmíng / bù cōngmíng.
3SG very be.intelligent / NEG be.intelligent
 ‘She is very intelligent/is not intelligent.’

As illustrated in (29b), some absolute adjectives can nevertheless be directly negated by *bù* ‘not’ like scalar adjectives, but there is no corresponding positive form (cf. (29c)). Accordingly, there exists no well-formed positive Adjective Phrase which could merge with Q realized as ‘A-not-A’, i.e. *including* negation as per Huang’s scenario. By contrast, the corresponding *negated* Adjective Phrase can be construed in syntax (cf. (29b)) and then merge with Q spelt out as ‘A’ as per my analysis.

This new analysis where the negated verbal projection is construed first before reduplication applies predicts that only those elements are acceptable as the first instance of ‘A’ in ‘A-not-A’ questions that can occur immediately below negation in a corresponding declarative. As demonstrated below, this prediction is borne out. (The trivial case where ‘A’ is a verb or an adjective is put aside here.)

Let us first look at VP-level adverbs modifying the event itself, which occur below negation and accordingly qualify as a target to be (completely or partially) copied. The (a) sentences show the ‘A-not-A’ questions and the (b) sentences the corresponding negated declarative:

- (31) a. Tā cháng bù cháng lái? (based on Teng Shou-hsin (1973a:25, (35b))
3SG often NEG often come
 ‘Does he come often?’
 b. Tā bù cháng lái. (Teng Shou-hsin (1973a:25, (35b))
3SG NEG often come
 ‘He doesn’t come often.’
- (32) a. Tāmen hù(xiāng) bù hùxiāng bang máng? (based on Ernst 1995:672, (11))
3PL reciprocally NEG reciprocally help activity
 ‘Do they help each other?’
 b. Tāmen bù hùxiāng bang máng. (Ernst 1995:672, (11))
3PL NEG reciprocally help activity
 ‘They don’t help each other.’
- (33) a. Tāmen rèn(zhēn) bù rènzhēn dú shū? (C.-C. Jane Tang 2008:(70))
3PL diligent NEG diligent read book
 ‘Do they study diligently?’
 b. Tāmen bù rènzhēn dú shū.
3PL NEG diligent read book
 ‘They don’t study diligently.’
- (34) a. Tāmen yīyàng bù yīyàng gāo? (C.-C. Jane Tang 2008:(68))
3PL equally NEG equally tall
 ‘Are they equally tall?’
 b. Tāmen bù yīyàng gāo.
3PL NEG equally tall
 ‘They are not equally tall.’

- (35) a. Tā jǐnzhāng de shíhou, luàn bù luàn pǎo? (based on Ernst 1994b:243,
 3SG nervous SUB time chaotic NEG chaotic run (10))
 ‘When he is nervous, does he run all over the place?’
 b. Tā (jǐnzhāng de shíhou,) bù luàn pǎo.
 3SG nervous SUB time NEG chaotic run
 ‘(When he is nervous,) he does not run all over the place.’¹⁵

There is a direct correlation between ‘A-not-A’ questions and the corresponding negated declarative in (31)–(35), where the element immediately below negation is the one to be copied and to instantiate the first instance of ‘A’ in ‘A-not-A’ questions. By contrast, adverbs and adjunct phrases *above* negation such as *míngtiān* ‘tomorrow’ (cf. (36c)) are not eligible for copying and automatically excluded as ‘A’ in ‘A-not-A’ questions (cf. (36b)).

- (36) a. Tā míngtiān qù bù qù Běijīng?
 3SG tomorrow go NEG go Beijing
 ‘Does he go to Beijing tomorrow?’
 b. *Tā míng(tiān) bù míngtiān qù Běijīng?¹⁶
 3SG tomorrow NEG tomorrow go Beijing
 c. Tā míngtiān bù qù Běijīng.
 3SG tomorrow NEG go Beijing
 ‘He does not go to Beijing tomorrow.’
 d. *Tā bù míngtiān qù Běijīng.
 3SG NEG tomorrow go Beijing
 (Intended: ‘He doesn’t go to Beijing tomorrow.’)

¹⁵ Ernst (1994b:243, (10)) observes the ungrammaticality of (i) and from this infers the unacceptability of certain adverbs in ‘A-not-A’ questions. Apparently, he does not see that (i) is bad for the simple reason that it is not the verb *pǎo* ‘run’ that counts as the *initial* portion of the VP to be copied, but the adverb *luàn* ‘chaotically’, as evidenced by its position following the negation *bù* ‘not’ in (35b) above.

(i) *Tā jǐnzhāng de shíhou, luàn pǎo bù pǎo?
 3SG nervous SUB time chaotic run NEG run

¹⁶ Reviewer 2 provides (i)–(ii) from the internet, acceptable in a very colloquial register:

(i) [Míng bù míngtiān] yě wúsuǒwèi le.
 tomorrow NEG tomorrow also not.matter LOWC
 ‘Whether it’s tomorrow or not doesn’t even matter.’
 (https://www.kkbox.com/hk/tc/song/-kW6e0lzMveSY80_SD, retrieved on Oct 16, 2025)

(ii) [Zhōng bù zhōngguó rén] yě wúsuǒwèi.
 Chinese NEG Chinese also not.matter
 ‘Whether they are Chinese or not doesn’t even matter.’
 (<https://www.163.com/dy/article/IUKAMG7U05562NCH.html>, retrieved on Oct 16, 2025)

In fact, ‘N *bù* ‘not’ N’ as a stylistic, rhetorical figure is attested since the 18th century and native speakers are well aware of the fact that the “canonical” case requires the copula *shì* ‘be’ (added by me in (iii)):

(iii) (Shì) Bóshì bù (shì) bóshì, wǒ wúsuǒwèi. (Sobelman 1980:2, (4); her glosses and translation)
 be Ph.D. NEG be Ph.D. I do.not.care
 ‘Whether Ph.D. or not, I don’t care.’

With ‘N *bù* ‘not’ N’ as a felicitous ‘A-not-A’ question, the reduplication of the first syllable of N is expected in (i)–(ii), given that *míngtiān* ‘tomorrow’ is a noun. The indirect question functions as a clausal subject in (i)–(ii) and as a clausal topic in (iii), respectively. On the constraints for the ‘N-*bù* N’ pattern in (iii), cf. Sobelman (1979; 1980).

The same holds for adjunct PPs: PPs whose head is copied in ‘A-not-A’ questions appear *below* negation in the corresponding negated declarative sentence, as expected. This is illustrated for (37) (from HLL 2009) as well as for example (38), with the corresponding declarative sentences added:¹⁷

- (37) a. Nimen míngtiān cóng bù cóng nán-zhàn chūfā? (= (25) above)
 2PL tomorrow from NEG from south-station depart
 ‘Will you depart from the South Station tomorrow?’
 (HLL 2009:252, (67); my glosses and translation)
- b. Tāmen míngtiān bù [PP cóng nán-zhàn] chūfā.
 3SG tomorrow NEG from south-station depart
 ‘They will not depart from the South Station tomorrow.’
- (38) a. Nǐ gēn bù gēn tā yīyàng gāo?
 2SG with NEG with 3SG equally tall
 ‘Are you as tall as him?’
- b. Nǐ bù [PP gēn tā] yīyàng gāo.
 2SG NEG with 3SG equally tall
 ‘You are not as tall as him.’
- c. *Nǐ gēn tā yīyàng bù yīyàng gāo? (compare with (34ab) above)
 2SG with 3SG equally NEG equally tall
 (Intended: ‘Are you as tall as him?’)¹⁸

The same observations hold for ‘A-not-A’ questions with *méi* ‘not (have)’, where again an adverb (or a subpart of it) can be copied when below negation in the corresponding declarative:

- (39) a. Tāmen méi (yǒu) rènzhēn tāolùn zhè ge wèntí. (Ernst 1995:687, (45))
 3PL NEG have serious discuss this CL problem
 ‘They didn’t discuss this problem seriously.’
- b. Tāmen rèn(zhēn) méi rènzhēn tāolùn zhè ge wèntí?
 3PL serious NEG serious discuss this CL problem
 ‘Did they discuss this problem seriously?’
- (40) a. Tā zhè jǐ tiān méi (yǒu) zhǔnshí lái. (based on Ernst 1995:699, (76))
 3SG this several day NEG have on.time come
 ‘The past couple of days he has not been on time.’

¹⁷ Li and Thompson (1981:542, (98)–(100)) already observed the importance of the position of negation. Since in the negated sentence (i), the PP (their “coverb” phrase) is above negation, the corresponding ‘A-not-A’ question is (ii):

- (i) Tā (*bù) duì nǐ bù hǎo. (Li and Thompson 1981:542, (98)–(100); their glosses and translations)
 3SG not to you not good
 ‘S/he is not good to you.’
- (ii) Tā duì nǐ hǎo bù hǎo?
 3SG to you good not good
 ‘Is s/he good to you?’

¹⁸ (38c) is only acceptable if *gēn* is not the preposition ‘with’, but the coordinating conjunction ‘and’, hence with *nǐ gēn tā* ‘you and him’ as a coordinated NP. Also cf. (34) above with *tāmen* ‘they’ as subject instead of *nǐ gēn tā*.

- (i) [NP Nǐ gēn tā] yīyàng bù yīyàng gāo?
 2SG and 3SG equally NEG equally tall
 ‘Are you and him equally tall?’

- b. Tā zhè jǐ tiān zhǔn(shí) méi zhǔnshí lái?
 3SG this several day on.time NEG on.time come
 ‘Has he been on time the past couple of days?’

Only items *below* negation in the declarative sentences can be potentially copied as ‘A’ in ‘A-not-A’ questions. The addition of the caveat “potentially” is important, because not all negative sentences have an ‘A-not-A’ question counterpart. Given that ‘A-not-A’ questions are neutral questions without any bias towards a positive or negative answer, ‘A-not-A’ questions are ungrammatical in the presence of adverbs introducing such a bias, even if these adverbs are acceptable below negation in the corresponding negated declarative. This explains why (41a) is judged as awkward, if not downright unacceptable, “even” though the adverb *tài* ‘too’ occurs below negation in the corresponding declarative (41b). Instead, the question must be formed with the yes/no question Force head *ma*, i.e. a sentence-final complementizer (cf. (41c)):

- (41) a. *Tā tài bù tài niánqīng?
 3SG too NEG too young
 b. Tā bù tài niánqīng.
 3SG NEG too young
 ‘He is not too young.’
 c. [CP [TP Tā bù tài niánqīng] ma]?
 3SG NEG too young INTERR
 ‘Isn’t he too young?’

That the unacceptability of (41a) is due to the conflict between the neutral nature of ‘A-not-A’ questions and the presupposition associated with *tài* ‘too’ is confirmed by (42). Here, it is the verb *dài* ‘bring’ that should be copied, because *yòu* ‘again’ always precedes negation (cf. (42c)). (42a) is nevertheless unacceptable, for *yòu* ‘again’ carries a presupposition at odds with the neutral status of ‘A-not-A’ questions. Only the question with the yes/no question Force head *ma* is acceptable (cf. (42b)).

- (42) a. *Nǐ yòu dài méi dài qián?
 2SG again bring NEG bring money
 b. [CP [TP Nǐ yòu méi dài qián] ma]?
 2SG again NEG bring money INTERR
 ‘Did you again not bring any money?’
 c. Nǐ yòu méi (*yòu) dài qián.
 2SG again NEG again bring money
 ‘You again didn’t bring money.’

By contrast, adverbs strengthening the interrogative nature such as *dàodǐ* ‘after all, in the end’ and *jiūjìng* ‘actually, exactly’ are acceptable in ‘A-not-A’ questions:

- (43) a. Nǐ dàodǐ ài bù ài tā? (HLL 2009:240, (22); their glosses and translation)
 You truly love not love him
 ‘Truly, do you love him or not?’
 b. Zhè tái jīqì jiūjìng hǎo(yòng) bù hǎoyòng? (Lü Shuxiang 2000:314)
 this CL machine actually practical NEG practical
 ‘Is this machine actually practical?’

The acceptability of the adverbs *dàodǐ* ‘after all, in the end’ and *jiūjìng* ‘actually, exactly’ between the subject and the reduplicated ‘A’ confirms that ‘A’ occurs in a distinct projection above negation and below TP hosting the subject.

To wrap up my new analysis, both *bù* ‘not’ and *méi* ‘not’ occur in ‘A-not-A’ questions and are subject to the same semantic and syntactic constraints here as in declarative sentences. Given that a morpho-phonological reduplication rule is by definition not sensitive to this kind of constraints, the standard account of ‘A-not-A’ questions proposed since Huang (1982) cannot be on the right track, where the “appropriate

negation” is to be chosen by the reduplication rule itself. Instead, the complete verbal projection *including* negation (i.e. *bù* ‘not’ or *méi* ‘not’) is first construed in syntax before merging with the abstract question morpheme [Q]. The latter is then realized by a reduplication rule that only copies the element immediately below negation, thus resulting in the first instance of ‘A’ as the realization of [Q], not the entire sequence ‘A-not-A’. On the contrary, ‘not-A’ is part of the verbal projection construed in *syntax*. The fact that negation marks the left edge of the verbal projection allows for the reduplication rule to simply target the first element following negation, while otherwise there is no straightforward way for this rule to identify the “initial portion” of the verbal projection to be copied in the ‘A-not-A’ question.

4.4. Old puzzles solved

This new analysis can finally account for a number of observations in the literature which have so far remained unexplained.

First, ‘A-not-A’ questions are unavailable for defective auxiliaries such as *děi* ‘must’, which lack a negated form **bù děi* ‘not must’ (cf. (44a)), an observation going back to Fan Jiyan (1982):

- (44) a. Nǐ (*bù) děi qīnzi qù. (Fan Jiyan 1982:430)
 2SG NEG must personally go
 ‘You need (not) go [there] personally.’
 b. *Nǐ děi bù děi qīnzi qù?
 2SG must NEG must personally go
 c. [CP [TP Nǐ děi qīnzi qù] ma]?
 2SG must personally go INTERR
 ‘Do you need to go [there] personally?’

(44b) is unacceptable, because due to the defective nature of the auxiliary *děi* ‘must’ it is impossible to construe the negated verbal projection ‘*bù* ‘not’ *děi* ‘must’ VP’ with which the abstract interrogative head [Q] could then merge. The question formed with the yes/no question Force head *ma*, however, is fine (cf. (44c)).

Second, only *méi* ‘not (have)’ is acceptable in ‘A-not-A’ questions, while *méi yǒu* ‘not have’ is excluded (cf. (45b)), an important point likewise noted by Fan Jiyan (1982):

- (45) a. Tā méi (yǒu) qù-guo.
 3SG NEG have go-EXP
 ‘He has not been there.’
 b. Tā qù méi (*yǒu) qù-guo? (Fan Jiyan 1982:427)
 3SG go NEG have go-EXP
 ‘Has he been there?’
 (46) a. %Tā yǒu méi yǒu qù-guo?
 3SG have NEG have go-EXP
 ‘Has he been there?’
 b. %Tā yǒu qù-guo.
 3SG have go-EXP
 ‘He has been there.’
 (47) Tāmen rèn(zhēn) méi (*yǒu) rènzhēn tāolùn zhè ge wèntí?
 3PL diligent NEG have diligent discuss this CL problem
 ‘Have they discussed this problem diligently?’

Yǒu ‘have’ is excluded in (45b) for the simple reason that this *yǒu* ‘have’ would then count as the first element below negation and hence as the ‘A’ element to be copied, thus giving rise to (46a) instead of (45b) where *qù* ‘go’ is the copied element ‘A’. Note that (46a) is acceptable for Southern speakers of Mandarin and among younger speakers, who likewise accept (46b) with preverbal aspectual *yǒu* ‘have’, as to be

expected in my analysis.¹⁹ Similarly, the presence of *yǒu* ‘have’ in (47) would make it impossible for the manner adverb *rènzhēn* ‘diligently’ to be targeted by the reduplication rule, given that *yǒu* ‘have’ would then be the element immediately below negation. The data in (45)–(47) thus neatly confirm that both a bottom-to-top derivation as well as exclusively copying the element following negation are crucial for a correct derivation of ‘A-not-A’ questions.

Importantly, Fan Jiyan (1982) points out that the constraints above do not hold in disjunctive questions with *háishi* ‘or’, thus nicely confirming the distinction made in C.-T. James Huang (1982:ch. 4.3.3 and subsequent works) between ‘A-not-A’ questions derived by reduplication, on the one hand, and disjunctive questions with *háishi* ‘or’, with or without partial ellipsis, on the other:

- (48) a. Tā wèn-guo Lǎo Zhāng háishi méi (*yǒu*) wèn-guo Lǎo Zhāng? (Fan Jiyan 1982:
3SG ask-EXP Lao Zhang or NEG have ask-EXP Lao Zhang 427, (12a–d))
‘Has he asked Lao Zhang or hasn’t he asked Lao Zhang?’
- b. Tā wèn-guo háishi méi (*yǒu*) wèn-guo Lǎo Zhāng?
3SG ask-EXP or NEG have ask-EXP Lao Zhang
‘Has he asked or hasn’t he asked Lao Zhang?’
- c. Tā wèn-guo Lǎo Zhāng háishi méi (*yǒu*) wèn-guo?
3SG ask-EXP Lao Zhang or NEG have ask-EXP
‘Has he asked Lao Zhang or hasn’t he asked?’
- d. *Tā wèn-Ø háishi méi (*you*) wèn-guo Lǎo Zhāng?
3SG ask or NEG have ask-EXP Lao Zhang

As illustrated in (48a–c), the presence of *yǒu* ‘have’ is very well allowed in disjunctive questions, no reduplication being involved here. Each verb must bear the aspectual suffix (the experiential aspect *-guo*), because a syntactic rule such as ellipsis must respect lexical integrity. It is not allowed to affect the subpart of a word, i.e. *wèn* ‘ask’ in *wèn-guo* ‘ask-EXP’ as in (48d). This is, however, possible for the reduplication rule in the corresponding ‘A-not-A’ question (49a) below, where *wèn-guo* ‘ask-EXP’ counts as the element ‘A’ to be targeted and to be (partially) copied and where accordingly it is acceptable that only the second verb bears the experiential aspect suffix *-guo*. As in (45b) above, *yǒu* ‘have’ is excluded after *méi* ‘not’ in (49b) (*modulo* the caveat concerning those speakers who accept (46ab)).²⁰

¹⁹ Li and Thompson (1981:545) likewise state the correlation between accepting preverbal aspectual *yǒu* ‘have’ in (46b) and accepting its presence in the corresponding ‘A-not-A’ question in (46a). Unlike Fan Jiyan (1982), they do, however, not mention the illicit presence of *yǒu* ‘have’ in the A-not-A questions as in (45b) for those speakers who do not use aspectual *you* ‘have’.

²⁰ The observations in (45)–(49) challenge the account in Guo (2024). Following McCawley (1994), Guo (2024:52) also observes that the correct distribution of *bù* ‘not’ and *méi* (*yǒu*) ‘not have’ must be taken care of in syntax and therefore posits an underlying full size asyndetic coordination construed in syntax for the full paradigm of yes/no questions in (23a–e) above, different from Huang’s modular analysis (cf. section 4.1 above) as well as my own. The mechanisms of derivation proposed, by contrast, echo Huang’s analysis, i.e. “backward prosodic deletion” (corresponding to Huang’s phonological reduplication rule) for the “left conjunct” and forward syntactically conditioned ellipses (Huang’s anaphoric ellipsis) for the “right conjunct”. Crucially, backward prosodic deletion is based on the analysis of ‘A-not-A’ questions as a *Right Node Raising* construction (RNR) (cf. (i)):

- (i) Zhāngsān xǐhuān, dànshì Lǐsì {bù xǐhuān / tāoyàn} zhè běn shū.
Zhangsan like but Lisi NEG like / loathe this CL book
‘Zhangsan likes, but Lisi {does not like/loathes} this book.’
- (ii) Zhāngsān {xǐhuān /*xǐ}, dànshì Lǐsì bù xǐhuān zhè běn shū. (cf. (1b) above with *xǐ*- acceptable
Zhangsan like / like but Lisi NEG like this CL book in an ‘A-not-A’ question)
‘Zhangsan likes, but Lisi does not like this book.’

Note, though, that unlike in ‘A-not-A’ questions, the verbs need not be identical in RNR (cf. the acceptable *tāoyàn* ‘loathe’ in (i)), and subpart deletion is disallowed (cf. (ii)). Nevertheless, Guo (2024:50) claims that subpart deletion and P-stranding, motivating Huang’s reduplication analysis, are consistent with RNR properties. However, she does

- (49) a. Tā wèn-Ø méi wèn-guo Lǎo Zhāng? (Fan Jiyan 1982:427, (9))
 3SG ask NEG ask-EXP Lao Zhang
 ‘Has he asked Lao Zhang?’
 b. *Tā wèn-Ø méi yǒu wèn-guo Lǎo Zhāng?
 3SG ask NEG have ask-EXP Lao Zhang

Third, in ‘A-not-A’ questions with *méi* ‘not (have)’, the perfective aspect suffix *-le* is excluded on either instance of the verb (cf. (50b–d)), only the bare form as in (50a) is allowed here (cf. Fan Jiyan 1982:428):

- (50) a. Nǐ kàn méi kàn wénjiàn?
 2SG see NEG see article
 ‘Have you read the article?’
 b. *Nǐ kàn-le méi kàn-le wénjiàn?
 2SG see-PERF NEG see-PERF article
 c. *Nǐ kàn méi kàn-le wénjiàn?
 2SG see NEG see-PERF article
 d. *Nǐ kàn-le méi kàn wénjiàn?
 2SG see-PERF NEG see article

Given that the perfective aspect suffix *-le* is incompatible with the negation *méi* ‘not (have)’, the sequence *méi V-le* ‘not V-PERF’ cannot be construed. Consequently, there is no legitimate source structure from which the sequence *kàn-le* ‘see-PERF’ could have been copied, and (50b) is excluded. (50c) is ill-formed for the same reason, i.e. the impossibility of construing the negated verbal projection *méi kàn-le* ‘NEG see-PERF’, notwithstanding the principled possibility for the reduplication rule to only copy the subpart *kàn* ‘see’ as the spell out of [Q]. In (50d), the negated VP itself *méi kàn wénjiàn* ‘NEG see article’ is well-formed, but there is no source for *kàn-le* ‘see-PERF’ as the copied element ‘A’. All these facts follow automatically from my analysis.

The fourth point is McCawley’s (1994:181–3) generalisation that for compounds whose first element is a negation as in *wèi-dìng* ‘not.yet-determine’ = ‘undecided’, *wú-chǐ* ‘not.have-shame’ = ‘be shameless’ and *fǒu-dìng* ‘not.be-determine’ = ‘reject’, the ‘A-not-A’ question is only possible if negation in the corresponding declarative is acceptable:²¹

- (51) a. *Zhèi ge wèntí wèi(dìng) bù wèidìng? (McCawley 1994:182–3, (7a), (8a),
 this CL question undecided NEG undecided (8c); glosses slightly changed)
 (Intended: ‘Is this question undecided?’)
 b. *Zhèi ge wèntí bù wèidìng.
 this CL question NEG undecided
 (52) a. Nǐ shuō tā wú(chǐ) bù wúchǐ?
 2SG say 3SG without.shame NEG without.shame
 ‘Do you say he’s shameless?’

not mention cases like (ii) and provides examples for P-stranding in RNR from Irish only, not from Chinese. Putting aside various other problems, Guo’s (2024) approach also fails to predict the unacceptability of *yǒu* ‘have’ in (45b), (47), (49b); backward prosodic deletion exclusively affects the “left conjunct” and is independent of the size of (ellipsis in) the “right conjunct” containing *yǒu* ‘have’.

²¹ “However, no special mechanism would be needed to account for the parallelism if one accepted not a derivation in which the negative element is a transformationally inserted fake negation but one in terms of a deep structure involving both positive and negative conjuncts” (McCawley 1994:183). Recall from footnote 13 above that McCawley uses the term “fake” negation to refer to negation introduced by the reduplication rule.

- b. Tā bù wúchǐ.
3SG NEG without.shame
'He isn't shameless.'
- (53) a. Zhāngsān fǒu(dìng) méi fǒudìng zhèi ge jìhuà?
Zhangsan reject NEG reject this CL plan
'Did Zhangsan reject this plan?'
- b. Zhāngsān méi fǒudìng zhèi ge jìhuà.
Zhangsan NEG reject this CL plan
'Zhangsan didn't reject this plan.'

This correlation between negation and 'A-not-A' questions is obtained automatically in the new analysis presented here, where the verbal projection including negation is first construed in syntax before being merged with the spell-out 'A' of the abstract polar question head. If there is no such negated verbal projection to begin with, the 'A-not-A' question cannot be formed, either.

5. Conclusion

The present article has challenged the standard account of 'A-not-A' questions which has basically remained the same since Huang (1982), where the entire sequence 'A *bù/méi* A' including negation is created by a reduplication rule. This cannot be correct, because such a rule is of a morpho-phonological nature and by definition "blind" to the semantic and syntactic constraints governing the distribution of *bù* 'not' and *méi* (*yǒu*) 'not have'. As shown in Paul and Yan (2026), the same dichotomy 'state vs non-state' underlying the system of tense and finiteness in Mandarin Chinese also determines the choice between *bù* 'not' and *méi* (*yǒu*) 'not have'. *Bù* 'not' negates states (including habituals) in the past and present, whereas *méi* (*yǒu*) 'not have' negates non-states in the past and derived states (i.e. 'zài' 'PROGR' V' and 'V-zhe' 'DUR') in the present and past.

The new analysis proposed here implements the bottom-to-top derivation in syntax advocated by the *Minimalist Program* since Chomsky (1995). The complete verbal projection including the appropriate negation *bù* 'not' or *méi* 'not (have)' is built first and only subsequently merged with the abstract polar question morpheme [Q]. As a consequence, negation itself is *not* a result of reduplication. The reduplication process then applies to realize the spell-out of [Q] by (partially) copying 'A', i.e. the element directly following negation. It is thus only the first instance of 'A' that realizes [Q], while 'not-A' is part of the extended verbal projection construed in syntax, a welcome result.

The constituency in syntax contrasts with the situation in phonetics, where the sequence 'A-not-A' forms a unit. As observed in Yan, Wang, and Shi's (2014) acoustic study, there is a high intonation at the initial point of the 'A-not-A' sequence and a sudden drop to a low curve at its end. Negation itself is de-stressed, and there is no intonational break between the first instance of 'A' and 'Neg A'. It is this mismatch between syntax and phonetics that might be the reason for the longevity of the analysis where negation itself is presented as the result of reduplication as well.

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