A typology of alternative questions in Chinese and other East Asian languages

Xinyi Li
The Hong Kong University of Science and Technology

This paper presents a typological study of the coding strategies of alternative questions (AQs) in Chinese and its linguistic neighbours in Asia. An AQ is a type of question in which the speaker asks the hearer to decide which of two or more alternatives holds. Previous studies have noted that some languages use a general disjunctive conjunction to connect the alternatives while others use an AQ-dedicated conjunction, like *haishi* 還是 in Mandarin. Our investigation finds that this latter kind of conjunction is preferred in southern varieties of Chinese, while some northern Chinese dialects tend to drop the conjunction and add a modal particle to each alternative. The divergence reflects a more general picture of AQ-type distribution across and beyond East Asia, where languages in the north and the west with OV order prefer to add a question marker to each alternative without using conjunctions, while languages in the east and the south with VO order prefer to use a conjunction and allow the items to be non-question-marked. In the transition zone from OV to VO, two atypical AQ types emerge in Sinitic languages. One type uses modal particles or the copula verb *shi* 是 as the connector; the other type simply juxtaposes the alternatives without any marking, or adds a modal particle or *shi* 是 to each option. With data from and beyond East Asian languages, we argue that many of the AQ-dedicated conjunctions developed from non-assertion markers in the sentence-initial position, which is more likely to happen in VO languages.

Keywords: alternative question, disjunction, typology, Sinitic languages

1. Introduction

Do you want to drink tea or coffee? This is a typical alternative question, in which the speaker lists two or more alternatives for the hearer to choose from. Alternative questions (henceforth, AQs) have attracted much less scholarly attention than polar questions (also known as yes/no questions; henceforth, PQs)

https://doi.org/10.1075/lali.00171.li | Published online: 19 July 2024
Language and Linguistics 26:1 (2025), pp. 22–77. ISSN 1606-822X | E-ISSN 2309-5067

and content questions (also known as WH-questions) by typologists as well as researchers of particular languages. In some recent cross-linguistic surveys of interrogatives, AQs are either neglected (e.g. by König & Siemund 2007: 291, who note that "alternative questions have a lot in common with polar questions, … they do not seem to show any striking typological variation"), or mentioned only in passing (e.g. by Givón 2001: 292, who views them as "a variant of PQ"). As suggested by Dixon (2012: 398):

> in some languages, alternative questions loom large in the grammatical panoply, and come in various types; in others they do not exist at all.

The impression that alternative questions are less acknowledged as an independent interrogative category is partially due to the fact that many languages have no dedicated interrogative markers for the AQ. For example, the English sentence *Do you want to drink tea or coffee?* structurally resembles the PQ, and this similarity was the central concern in the early study of English AQs. Hamblin (1976); Karttunen (1977), and Harris (1978) regarded the AQ as a more basic type from which the PQ is derived through dropping the second alternative *or not*. This framing triggered subsequent research into the ambiguity of the AQ *Do you want to drink* [*tea or coffee*]?; it is a PQ when *or* connects two items at a phrasal instead of a clausal level. This ambiguity can be resolved by intonation in English (Zimmermann 2000; Han & Romero 2004; Beck & Kim 2006).

In contrast, studies of the AQ in other languages may not focus on the formal distinction between AQ and PQ if they face no such ambiguity. For example, the AQ may be asked in more expressive ways, such as by juxtaposing two short polar questions (e.g. Japanese) or by connecting two polar questions with a disjunctive conjunction (e.g. Kazakh). One special strategy is to create a question-aimed conjunction to connect alternatives (e.g. Mandarin *haishi* 還是). Chao (1968) first compared *haishi* with English *or* and concluded that *haishi* cannot express *either… or* in a declarative sentence; it can only be used in an inquisitive context to express *whether… or*. This strategy is also attested in the languages of the European periphery, as reported by Haspelmath (2004) and Mauri (2008), and it is also popular in some non-Sinitic languages within China (Luo 2013). The aforementioned studies suggest that some languages have developed different disjunctive conjunctions that are used in declarative and interrogative sentences respectively. In this way, some of these languages have AQ-specific markers and thus elevate the AQ to an independent category within their interrogative systems.

The distribution of AQ structures that use question-aimed conjunctions seems not to be random in East Asia. As pointed out by Song (1993), northern Sino-Tibetan languages tend to use modal particles to formulate an AQ while southern ones tend to use conjunctions. In addition, according to the typological

study of questions in Northeast Asia by Hölzl (2018), the AQ structures exemplified in Japanese or Kazakh are widely distributed in this region and no question-aimed conjunctions are attested, except for those borrowed from neighbouring Sinitic languages. While the distribution of AQ types in East Asia seems to show a north-south division, the whole picture is further complicated by the fact that more uncommon AQ structures are reported in this area. For example, in standard Mandarin, one type of AQ just juxtaposes two alternative items without any additional marker, while some Chinese dialects allow the alternatives to be connected by a modal particle or a copula.

Although a few cross-linguistic studies of AQ structures involving comparisons among Sinitic languages (Shao et al. 2010; Guo 2015) and other East Asian languages (Song 1993; Luo 2013; Hölzl 2018) have been done, it remains largely unknown what typological correlations are associated with the coding strategies of AQ in languages of this region. In this paper, we attempt to provide a solution from the perspective of areal typology. In § 2, we investigate the types and distribution of the AQ within Sinitic languages (also known as Chinese dialects), showing the divergent preference of AQ types between the northern and southern varieties of Chinese. Most southern varieties ask an AQ by linking alternatives with a connector, which we refer to as "the explicitly-connecting strategy"; some northern varieties present alternatives through simple juxtaposition, without any explicit connector, which we describe as "the implicitly-connecting strategy".

In § 3, the investigation extends to other East Asian languages, for which the correlation between the AQ coding and the word order is identified. Among the languages we surveyed, the explicitly-connecting strategy is widely applied among VO languages, whereas the implicitly-connecting strategy is more likely to be used by the OV languages. While the OV languages prefer each alternative item in the AQ to come with a question marker, the VO languages allow the items to be non-question-marked. Consequently, the typical AQ structure of OV languages consists of two question-marked alternative items that are implicitly connected, and that of VO languages tends to explicitly connect the alternatives with a conjunction. Then, from northwest to southeast, in the OV-to-VO transition zone, some untypical AQ structures emerge.

In § 4, we discuss why the above strategies are able to indicate AQs. Moreover, with evidence drawn from within and beyond East Asian languages, we point out that the so-called AQ-specific marker (i.e. a question-aimed conjunction) is more likely to be a question marker with a connective function. Our observations are consistent with the ideas of Hashimoto (1976; 1978) and Comrie (2008): the Sinitic languages occupy a transition area between North and Southeast Asian languages, which shapes the typological division within Sinitic languages and also motivates the emergence of hybrid linguistic structures.

Considering that the most commonly used AQ generally provides two alternatives, this study confines itself to the two-alternative AQ, excluding expressions involving multiple alternatives. The language sample of this study consists of 100 Sinitic languages and 101 non-Sinitic East Asian languages. The names of the languages, their AQ types, and our data sources are provided in the appendices.

2. Alternative questions in Sinitic languages

The essential element of an AQ lies in the alternative items, and therefore we classify AQ structures by the ways in which the alternatives are presented.[1] We find two basic ways of presenting alternative items in Sinitic languages, the first simply juxtaposing the items without any formal connector, the second adopting a connector to link the two alternatives; we call the former the implicitly-connecting strategy and the latter the explicitly-connecting strategy.[2] The implicitly-connecting strategy can be subdivided into four types according to the markers attached to each option. The explicitly-connecting strategy has three subtypes, in which various connectors are used.

2.1 The implicitly-connecting strategy

The first type of the implicitly-connecting strategy is to **juxtapose two options without a dedicated marker**, as shown in (1). In fact, this type of AQ is also common in Standard Spoken Chinese, when the alternatives are short in length and carry a strong contrastive sense, as shown in (2). However, some Sinitic varieties in the groups of Jin and Central Mandarin, as well as three other dialects from the south,[3] are reported to use this type of AQ with fewer restrictions.

---

1. Given that most languages have more than one way to ask an AQ, and the question-aimed alternative conjunction *haishi* 還是 of Mandarin is widespread in almost all the Sinitic languages we examined, the AQ type of each language is designated by the structure that employs a strategy other than using *haishi*. But if a language only uses *haishi* to form AQ, its AQ type is the same as the *haishi* type.

2. We prefer to use the terms "implicitly-connecting strategy" and "explicitly-connecting strategy" rather than "juxtaposing strategy" and "connecting strategy", as the juxtaposing strategy also functionally connects the alternatives. To emphasize that these two strategies can both build an alternative relationship between the items, we try to avoid setting the term "juxtaposing" against "connecting".

3. They are Wuxiang (武鄉), Jingbian (靖邊), Pingyao (平遙), Taiyüan (太原), Wubu (吳堡) (Guo 2015), Shanxian (陝縣) (Zhang 2008), Zaozhuang (棗莊) (Wang 1990), Heshun (和順)

(1) **Central Mandarin** (Shanxian 陝縣 dialect in Henan 河南)
叫 你 叫 他?
Tɕiau^{24} *n̩i*^{55} *tɕiau*^{24} *t'a*^{55}*?*
call you call he
'(Should we) call you or call him?' (Zhang 2008: 156)

(2) **Standard Mandarin**
這 件 事 真 的 假 的
Zhe^{51} *jian*^{51} *shi*^{51} *zhen*^{55} *de*^{0} *jia*^{214} *de*^{0}*?*
this CLF thing real NMLZ unreal NMLZ
'Is this true or false?'

The second type is to **juxtapose the alternatives with a modal particle attached to each item,** which can be formulated as [A m] [B m], where *A* and *B* stand for two alternatives, and *m* for the modal particle.

(3) **Jin** (Taiyuan 太原 dialect in Shanxi 山西)
分開 嘞 合住 嘞?
Fəŋ^{11} *k*^{h}*ai*^{11} *lɤ*^{11} *xaʔ*^{2}*-tsu*^{45} *lɤ*^{11}*?*
separate M.PROG together-live M.PROG
'(Do you) live separately or together?' (Li 2005: 118)

(4) **Gan** (Susong 宿松 dialect in Anhui 安徽)
請 姚木匠 啊 李木匠 啊?
Tɕ'in^{22} *iau*^{35}*-mo*^{55}*tɕ'iaŋ æ* *li*^{31}*-mo*^{55}*tɕ'iaŋ æ?*
call Yao-carpenter M.TOP Li-carpenter M.TOP
'(Should we) call Carpenter Yao or Carpenter Li for help?' (Tang 2005: 251)

This type is mainly seen in northern dialects of the Jin group, with several cases also found in Central Mandarin and Jiao-Liao Mandarin in the north, and Gan and Xiang in the south.[4] In the Jin group, the modal particles take the forms of *ia* 也, *lai* 來, *lei* 嘞 and *li* 哩, which also code aspectual or temporal meanings; for example *ia*^{0} 也 and *ləʔ*^{21} 嘞 code future tense and present progressive tense in Wubu (Xing & Wang 2014), as shown in (5) and (6):

(Guo 2020), Lianshan (連山) (Zhang 2020), Lipu (荔浦) (Pan 2017), and Shangmayang (上麻陽) (Zhang Junhao 2019). See Appendix A.

4. These places include: Datong (大同), Wuxiang (武鄉), Jingbian (靖邊), Loufan (婁煩), Pingyao (平遙), Taiyüan (太原), Wubu (吳堡), Neihuang (內黃) (Li 2016), Shanxian (陝縣) (Zhang 2008), Wudi (無棣) (Zhang 2015), Susong (宿松) (Tang 2005), Shenmu (神木) (Xing 2002), Changzhi (長治) (Wang 2007), Hejin (河津) (Shi 2004), Hengshan (衡山) (Peng 1999), Heshun (和順) (Guo 2020), Xüpu (溆浦) (Zhang Ping 2013), Yongji (永濟) (Shang 2018), and Yüshe (榆社) (Li 2007).

(5) **Jin** (Wubu 吳堡 dialect in Shanxi 陝西)
天 又 焗 也。
T^{h}ie^{21} iao^{53} tɕ^{h}yəŋ^{412} ia^{0}.
weather again hot M.FUT
'It's about to get hot again.' (Xing & Wang 2014: 380)

(6) **Jin** (Wubu 吳堡 dialect in Shanxi 陝西)
那 正 看 書 著 嘞。
Nɤ^{412} tʂɛe^{53} k^{h}ie^{53} su^{213} tʂə^{21} lə^{21}.
he exactly read book PROG M.PRS.PROG
'He is reading a book.' (Xing & Wang 2014: 384)

For the other dialects, the modal particles added have a function similar to that of *a* 啊 or *ne* 呢 in Standard Chinese; we see this, for example, with *a* 啊 and *nong* 噥 in Susong dialect (Gan), *e* 呃 in Wudi dialect (Northern Mandarin), and *ye* 也 and *yo* 喲 in Neihuang dialect (Central Madarin). *A* 啊 can be used in a biased polar question (see (7)); at the discourse level, *a* 啊 can introduce the proposition into the conversation as the current topic (see (8)).

(7) **Gan** (Susong 宿松 dialect in Anhui 安徽)
哥哥 真 要 當 兵 啊?
Ko^{22} `ko tsən$^{22}$ iau$^{21}$ taŋ$^{22}$ pin$^{22}$ `æ?
elder brother really will become soldier M
'My elder brother is really going to be a soldier?' (Tang 2005: 242)

(8) **Gan** (Susong 宿松 dialect in Anhui 安徽)
牛 啊, 要 牽 去 吃 滴 青草 只 中。
Niəu^{35} `æ, iau^{21} tɕiɛn^{22} tɕi^{21} tɕi^{55} ti^{55} tɕin^{22}tsau^{31} tsi^{55} tsoŋ^{22}.
cow M need take to eat some grass only good
'About the cow, you have to take it to eat some grass to do so.' (Tang 2005: 243)

The third type is to **juxtapose the two alternative items, each taking a copula verb *shi* 是.**[5] This type can be formulated as [cop A] [cop B], where *cop* stands for the copular verb. *Shi* can occur before an NP, as shown in (9), where it functions as a copula verb, but it can also appear before a VP as in (10), in which the copula nature of *shi* might not be uncontroversial.

5. This type of AQ is reported in Dongkou (洞口) (Wang 2019), Huojia (獲嘉) (He 2018), Jingbian (靖邊) (Guo 2015), Lipu (荔浦) (Pan 2017), Xishui (習水) (Fan 2010), Yongshun (永順) (Peng 2019), Zhangqiu (章丘) (Zhao 2007) and Zibo (淄博) (Bi 2008).

(9) **Central Mandarin** (Shanxian 陝縣 dialect in Henan 河南)
是 你 是 他?
Sɿ^{24} *n̩i*^{55} *sɿ*^{24} *t'a*^{55}*?*
COP you COP he
'(Who?) Is it you or him?' (Zhang 2008: 156)

(10) **Central Mandarin** (Shanxian 陝縣 dialect in Henan 河南)
是 割 草 是 鋤 地?
Sɿ^{24} *kuo*^{51} *ts'au*^{55} *sɿ*^{24} *ts'əu*^{312} *t'i*^{24}*?*
COP cut grass COP plough land
'(Should we) cut the grass or plough the land?' (Zhang 2008: 156)

Huang (1998) treats *shi* as an adverbial focus operator when it is attached to a VP, but considering the functional parallelism of *shi* in alternative questions like (9) and (10), we here insist on the analysis of *shi* as a copula verb. The copula analysis of *shi* may demand some further explanation. According to Li & Thompson (1981: 150f.), the copula *shi* in Mandarin can link the subject not only to an NP (in the predicate) but also to a full VP, so that "*shi* functions to make a special affirmation that affirms the information in preceding or following the discourse." Hengeveld (1990) further strengthens the copula analysis of *shi* by arguing that *shi* functionally identifies and then links a "term-predicate" (i.e. a proposition) to a "term". Similarly, Zhan & Sun (2013) interpret s*hi* as a copula connecting a subject or a theme with a following predicate, a process in which *shi* signals a specifying meaning and encodes a contrastive focus. In declaratives, the information identified by *shi* turns into an affirmation as the other possibilities are denied by speakers; in interrogatives, *shi* identifies and focalizes possible propositions, but speakers have no certainty to rule out other possibilities, so they require a confirmation from hearers. In an AQ, the hearer is expected to tell which proposition is true.

The fourth type is to **add a question marker to each alternative**. As shown in (11) and (12), the question marker can be *haishi* 還是[6] or the PQ marker *ma* 嗎.[7] Although *haishi* 還是 does not link alternatives in such a structure, it still acts as an interrogative marker that introduces possible answers into the question. This is reminiscent of an earlier use of *haishi* in the history of Chinese (Mei 1978).[8]

---

6. This type of AQ is reported in Gushi (固始) (Li Xiaoxian 2003), Shanxian (陝縣) (Guo 2015), Harbin (哈爾濱) (Jin 2003), Taiyüan (太原) (Li 2005), Xishui (習水) (Fan 2010), and Yongshun (永順) (Peng 2019).

7. This type of AQ is only attested in Urumqi (烏魯木齊) (Li & Wan 2012) in our sample.

8. For example, *Zhuzi yülei* (朱子語類, 1270 C.E.) documented the following question: 如此，則末後以此二書並授之，還是尹子已得此意？還是以二書互相發故？ ('Then the

(11) **Northeastern Mandarin** (Harbin 哈爾濱 dialect in Heilongjiang 黑龍江)
你 還是 吃 乾飯, 還是 喝 粥?
Ni^{21} *xai*^{35}*ʂɿ*^{41} *tʂʰɿ*^{33} *kan*^{33}*fan*^{41}, *xai*^{35}*ʂɿ*^{41} *xə*^{33} *tʂou*^{33}*?*
you or.Q eat rice or.Q drink porridge
'Do you want to eat rice or porridge?' (Jin 2003: 55)

(12) **Lan-Yin Mandarin** (Urumqi 烏魯木齊 dialect in Xinjiang 新疆)
他 來 嗎 不 來 嗎?
Tʰa^{51} *lai*^{51} *ma*^{0} *pu*^{213} *lai*^{51} *ma*^{0}*?*
he come M.Q not come M.Q
'Will he come or not?' (Li & Wan 2012: 87)

Among the four types of AQ mentioned above, some can coexist in the same language and serve different contexts or communicative needs. If the alternative items are short in length or show a strong contrast (i.e. having opposite meanings or employing parallel structures that share the same background information except for the alternative part), the first type is preferred. When the alternatives are VPs, and the speaker feels the need to specify the tense/aspect properties of the event, the second type may be favored. Sometimes, modal particles externalize the non-assertion property of the alternative propositions (Bybee et al. 1994), as alternatives in an AQ are potential answers generally reflecting people's epistemic uncertainty. The third type is more concerned with the identification of each alternative, so it is also feasible to add *shi* to the basic structure of the second type to emphasize the identification, through which a variant form of the second type is created, as shown in (13).

(13) **Jin** (Baotou 包頭 dialect in Inner Mongolia 內蒙古)
你 是 要 大 的 也 是 小 的 也?
ŋi^{213} *sɪ*^{53} *iau*^{53} *ta*^{53} *tə*^{43} *iɛ*^{0} *sɪ*^{53} *ɕiau*^{213} *tə*^{43} *iɛ*^{0}*?*
you COP want big NMLZ M.PRS COP small NMLZ M.PRS
'Do you want the big one or the small one?' (Guo 2015: 288)

2.2 The explicitly-connecting strategy

The explicitly-connecting strategy uses a connector to link two alternatives, regardless of whether the alternatives are accompanied by modal particles or the copula verb *shi* 是. The connector may not necessarily be a conjunction in terms of categorical status; it syntactically occupies a conjunctional position and func-

teacher gave him the two books. Was it because Yinzi already knew the truth, or was it because he wanted to use these two books to inspire him?')

tionally connects the two alternatives just as a genuine conjunction does, and thus it may be viewed as a de facto conjunction which marks the AQ.

2.2.1 Conjunctions as the connector

Haishi 還是 is not the only AQ conjunction in the Sinitic sample, with some southern dialects having their own conjunctions for AQs. In Min, *yi* 抑 is used in Fuzhou (福州) (Chen 2015) and Zhangzhou (漳州) (Huang 2008), *gushi* 故是 in Jian'ou (建甌) (Jiang 2015) and *hai* 還 in Putian (莆田) (Huang 1996). In Hakka, *yihaishi* 抑還是 is used in Liancheng (連城) (Xiang 1997), *hai* 還 in Fengcheng (豐城) (Chen 2012) and *yexi* 也係 in Shicheng (石城) (Zeng 2010). In Cantonese, *yihuo* 抑或 and *ding/dingshi* 定/定是 are used in Guangzhou (廣州) (Peng 2010), *shengshi* 剩是 in Lianshan (連山) (Zhang 2020), *wushi* 唔是 in Pingshan (平山) (Wei 2019) and *ye/yexi* 也/也係 in Yangjiang (陽江) (Huang 1996). In Wu, Ningbo (寧波) dialect (Ruan 2009) uses *hai* 還. In Xiang, Shaodong (邵東) dialect also uses *hai* 還 (Liu 2014). The AQ structures using conjunctions have the bracketing [A] [conj B], where *conj* stands for the conjunctions. Here are some examples:

(14) **Hakka** (Liancheng 連城 dialect in Fujian 福建)

佢	食	粥	抑還是	食	飯?
Tɹʮə˥	*ɕieʔ˥*	*tɹʮə˧˥*	*ə˧˥va˥sɿə˩*	*ɕieʔ˥*	*k'ui˩?*
he	eat	porridge	or.Q	eat	rice

'Does he want to eat porridge or eat rice?' (Xiang 1997: 377)

(15) **Wu** (Ningbo 寧波 dialect in Zhejiang 浙江)

諾	去	還	我	去?
Noʔ˧˩	*tɕ'i˥˧*	*ua˧*	*ŋo˧˩*	*tɕ'i˥˧?*
you	go	or.Q	I	go

'Are you going or should I go?' (Ruan 2009: 150)

These AQ conjunctions are historical forms that are preserved in the aforementioned southern dialects but no longer used in modern Standard Chinese. The exception is *yihuo* 抑或, a conjunction that appears in declaratives or questions to express *or*. *Yi* 抑 and *yihuo* 抑或 can be traced back to pre-Qin texts, where the AQ is formed by connecting two PQs, and the second PQ can be introduced by *yi* 抑 or *yihuo* 抑或 (Mei 1978). The historical development of such conjunctions does not concern us in this study.

2.2.2 Modal particles as the connector

We have mentioned in § 2.1 that modal particles can appear after each alternative item in an implicitly-connected AQ structure. From this, an explicitly-connected

structure could be derived when only one modal particle appears between alternatives.

According to Guo (2015), some Sinitic varieties in the Jin group sometimes drop one modal particle in AQs as shown in (16) and (17):

(16) **Jin** (Heshun 和順 dialect in Shanxi 山西)
今兒 是 星期 一 也 二?
Tɕiər^{42} *sɿ*^{24} *ɕiəŋ*^{42}*tɕhi*^{42} *ieʔ*^{21} *ia*^{0} *ɿ*^{24}*?*
today COP week one M.PRS two
'Is today Monday or Tuesday?' (Guo 2015: 280)

(17) **Jin** (Loufan 婁煩 dialect in Shanxi山西)
明兒 是 好天 賴天 嘞?
Miər^{33} *sɿ*^{54} *xɔu*^{312}*tɕ*^{h}*iɛ*^{33} *lɛi*^{54}*tɕ*^{h}*iɛ*^{33} *ləʔ*
tomorrow COP sunny cloudy M.PRO.PRS
'Will it be sunny or cloudy tomorrow?' (Guo 2015: 282)

Examples (16) and (17) can be formulated as [A m] [B] and [A] [B m]. In [A m] [B], the modal particle can function as a connector for it being positioned in between two alternatives. Though this structure is a variant in those Jin dialects, we consider it another AQ type in Sinitic languages for two reasons. First, some Sinitic languages beyond the Jin group express AQs in the form of [A m] [B] without adopting "the full structure" [A m] [B m] at the same time, so [A m] [B] has become the main AQ construction in these languages. Second, according to Guo (2015), [A m] [B] can be used as an embedded non-interrogative clause, as shown in (18):

(18) **Jin** (Yüxian 盂縣 dialect in Shanxi 山西)
我 蒸 饅頭 也 炒 菜 都 會。
ŋɤo^{53} *tsɿ*^{412} *mæ̃*^{22}*t'əu*^{0} *ia*^{0} *ts'au*^{53} *ts'aɛ*^{55} *tu*^{412} *xuei*^{55}.
I steam buns M.FUT fry food both can
'Steaming buns or frying vegetables, I can do them both well.' (Guo 2015: 296)

In Standard Mandarin, the construction [A] [*haishi* B] also can be used in such subordinate clauses, indicative of the high degree of grammaticalization of *haishi*. Therefore, [A m] [B] in (18) may have been accepted as similar to [A] [*haishi* B] for the [*A x B*] construction they share. By contrast, we have not found any Sinitic language coding AQs mainly in the formula [A] [B m], let alone developing [A] [B m] to be used in a subordinate clause. Moreover, Guo (2015: 285) finds that the alternative items are usually short and show a strong contrastive sense in [A] [B m]; if we compare them with those in [A m] [B], the latter show fewer constraints. At this point, we conjecture that [A] [B m] might be more similar to the implicitly-connected type of AQ, while [A m] [B] may have developed into an independent

AQ expression in some Sinitic languages. Our assumption is also in line with the descriptions in some reference grammars (e.g. Dai 2006; Zhang 2008, 2009; see also Sheng 2014) which report the modal particle has a connective function in AQ.

We distinguish two types of modal particle connectors in our survey: the PQ particle connector and the non-PQ particle connector. The PQ particle has the same function as *ma* 嗎 in Standard Chinese while the non-PQ particle resembles *me* 麼, *ne* 呢 or *a* 啊.

The PQ particle connector is mainly found in Mandarin varieties in the north-western and central western areas, such as Lanzhou (蘭州) (Ding 2015), Tongxin (同心) (Zhang 2000), Ruicheng (芮城) (Lü 2016), Qishan (岐山) (Wu & Han 2016) Fufeng (扶風)(Wu 2005), Fuping (富平) (Li Hong 2003) and Yongji (永濟) (Shang 2018). Only one Southwestern Mandarin variety, the old Chengdu (成都) dialect, uses the PQ particle connector in AQs (Zhang et al. 2001).[9] Although the PQ particle was originally attached to the first clause, now it has developed a connective function so that the PQ-marking usage has receded in AQ structures, which means that the first alternative is no longer a PQ. The following are examples of PQ and AQ in Fuping dialect:

(19) **Central Mandarin** (Fuping 富平 dialect in Shanxi 陝西)

a. 你 能 來 麼?
Ni˨ nəŋ˧ lai˧ mɤ˨?
you can come M.Q
'Could you come?

b. 沒 有 飯 麼 有 飯?
Mu˨ iəu˧ fan˥ mɤ˨ iəu˧ fan˥?
not have rice M.Q have rice
'Is there any rice?' (Li Hong 2003: 72)

The non-PQ particle connectors show a certain degree of regional differentiation in distribution. In the western and central western regions, the non-PQ particle connectors are recorded with Chinese characters such as 麼, 嘿, or 嘛. They usually serve as topic markers in declaratives, and some of them can occur in a biased question to convey a dubious attitude. In our sample, these kinds of non-PQ particle connectors are reported in Lan-Yin Mandarin, Central Mandarin, and Southwestern Mandarin, including Shandan (山丹), Zhongning (中寧), Hancheng (韓城), Linxia (臨夏), Shanxian (陝縣), Urumqi (烏魯木齊), Xi'an (西安), Fuping (富平), Guanling (關嶺), Zunyi (遵義), Xishui (習水), Suiyang (綏陽) and Kunming (昆明).

9. The particle connector is *wa* 哇 in old Chengdu dialect (Zhang et al. 2001: 342).

In the eastern dialects such as Shanghai (上海), Shaoxing (紹興) Suzhou (蘇州) and Taihu (太湖) dialect, the non-PQ particle connectors are recorded by the characters 嘞 or 勒. According to Li (1998), *lei* developed from *ne* 呢, and thus it is no surprise that it retains the core features of *ne*. The last group of non-PQ particle connectors are recorded as 阿, 啊, 哎 or 嗡; they are used in a wide array of southern dialects in our sample, including Xiang (Gutang 古塘, Yiyang 益陽, Xinhua 新化, Xiangyin 湘陰 and Shangmayang 上麻陽); Hakka (Shicheng 石城); Yüe (Jizhao 吉兆), Wu (Wenzhou 溫州 and Tiantai 天台), Gan (Yifeng 宜豐 and Linchuan 臨川) and Southwestern Mandarin (Bijie 畢節).[10]

We have discussed the features of *ne* 呢 and *a* 啊 in §2.1, and the most notable similarity between them is that they can express doubt in questions and introduce a topic into a current conversation. Here are three examples of *me, lei*, and *a* connectors in AQ:

(20) **Southwestern Mandarin** (Kuming dialect 昆明 in Yunnan 雲南)
今天 走 麼 明天 走?
Tɕin^{44} *tʰjæn*^{44} *tsou*^{53} *mə*^{0} *min*^{31} *tʰjæn*^{44} *tsou*^{53}*?*
today leave M tomorrow leave
'Leaving today or tomorrow?' (Investigated by author)

(21) **Wu** (Suzhou 蘇州 dialect in Jiangsu 江蘇)
今朝 去 嘞 明朝 去?
Tɕin^{44} *tsæ*^{44} *tɕ'i*$^{523}_{44}$ *lə?*^{55} *mən*$^{223}_{22}$ *tsæ*^{44} *tɕ'i*$^{523}_{44}$
today go M tomorrow go
'(Should we) go today or tomorrow?' (Li 1998: 127)

(22) **Xiang** (Gutang 古塘 dialect in Hunan 湖南)
你 是 今日 去 啊 明日 去?
n̩^{22} *sʅ*^{11} *ʧen*^{44} *iɛn*^{53} *tɕ'i*^{24} *a*^{0} *min*^{23} *iɛn*^{53} *tɕ'i*^{24}*?*
you COP today go M tomorrow go
'Are you going today or tomorrow?' (Wu 2006: 27)

10. Sources of dialects in this paragraph: Shandan (He 2007), Zhongning (Huang 1996), Hancheng (Akitani & Xu 2016), Linxia (Xie & Zhang 1990), Shanxian (Zhang 2008), Urumqi (Li & Wan 2012), Xi'an (Lan 2011), Guanling (Lu 2020), Zunyi (Hu 2010), Xishui (Fan 2010), Suiyang (Yao 2007) and Kunming (investigated by the author). Shanghai (上海) (Lao 2014), Shaoxing (紹興) (Sheng 2014), Suzhou (蘇州) (Li 1998), Taihu (太湖) (Yang 2017), Gutang (Wu 2006), Yiyang (Xu 2001), Xinhua (Zhou 2010), Xiangyin (Long 2015), Shangmayang (Zhang Junhao 2019), Shicheng (Zeng 2010), Jizhao (Chen 2019), Wenzhou (Zheng 2009), Tiantai (Dai 2006), Yifeng (Shao 2010), Linchuan (Zhang Lan 2019), Xingxian (Gao 2014), and Bijie (Ming 2007).

2.2.3 Copula verb *shi* 是 as the connector

We have shown in §2.1 that the pairwise copula verb *shi* can appear in implicit-connective AQs, and this type of AQ has a variant form which drops the first *shi* and leaves the other between the two alternatives (i.e. [A] [cop B]). This variant is reported in Jin (Jingbian 靖邊, Loufan 婁煩 and Wubu 吳堡), Central Mandarin (Zaozhuang 棗莊) and Northern Mandarin (Zhangqiu 章丘). This is not, however, the main reason that we elevate the single-copula-marked AQ into an independent type. What is significant is that, for some Sinitic languages, using a single-copula-marked AQ is their primary choice, though, pragmatically, they can bring another *shi* back to emphasize both alternatives. This situation is reported in Xiang (Changde 常德), Gan (Dongkou 洞口), Lan-Yin Mandarin (Ganzhou 甘州), Jiao-Liao Mandarin (Longkou 龍口), Yüe (Tengxian 藤縣 and Lianshan 連山), Pinghua (Bingyang 賓陽, Tangbu 塘堡 and Yining 義寧) and Hezhou dialect (賀州).[11] Here are examples from Jingbian and Yining:

(23) **Jin** (Jingbian 靖邊 dialect in Shanxi 陝西)
今天 走 是 明天 走?
Tɕiɤ̃^{33}t'iɛ^{33} tsou^{21} sʅ^{52} miɤ̃^{33}t'iɛ^{33} tsou^{21}?
today leave COP tomorrow leave
'Leaving today or tomorrow?' (Guo 2015: 275)

(24) **Pinghua** (Yining 義寧 dialect in Guangxi 廣西)
來朝 天晴 是 下雨?
Lɐi^{31}tiu^{34} t'in^{34}tsieŋ^{31} ɕi^{12} ha^{53}ieu^{53}?
tomorrow sky-sunny COP fall-rain
'Will it be sunny or rainy tomorrow?' (Zhou 2005: 268)

Influenced by Standard Mandarin, many Sinitic languages also use *haishi* in their AQs. Guo (2015) argues that the AQ connector *shi* employed in some dialects of Jin group originates from a reduction of *haishi*. The AQs in such Jin dialects can take multiple forms: they can use the implicitly-connecting mode with double *shi*, or the explicitly-connecting mode with the single connector *shi* or *haishi*. Given the coexistence of these variants, we have no evidence to confidently define *shi* as an independent connector in such Jin dialects. However, this may not be the case for the other dialects discussed in this section, as it is more likely that such dialects use *shi* as an independent connector in the AQ structure. This is supported by the fact that the AQ structure with the connector *shi* is reported in the data sources as the most commonly used and indigenous expression in such dialects, and *haishi*

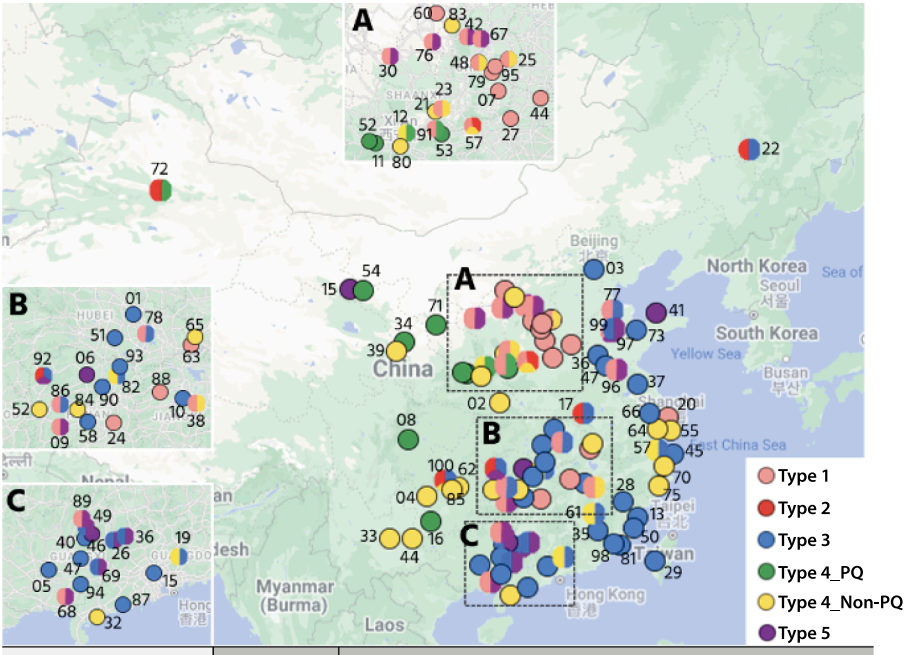
11. See the following sources for this data: Changde (Yi 2007), Dongkou (Wang 2019), Ganzhou (Gao 2009), Hezhou (Liu 2011), Lianshan (Zhang 2020), Longkou (Ma 2007), Tengxian (Tang 2013), Bingyang (Qin 2007), Tangbu (Xiao 2005), Yining (Zhou 2005).

is not mentioned as a connector used at a high frequency. This situation suggests that *shi* may be a more established AQ connector than expected. An additional piece of evidence comes from Tang (2013), who reports that Tengxian (藤縣) dialect uses *shi* as the authentic connector in its AQ, though it has another AQ connector in the form of *zhengshi* 鄭是, which is borrowed (and adapted) from the Mandarin *haishi*. It is worth noting that, in the historical development of AQ forms as documented in *Zutang Ji* (祖堂集, 952 AD), *shi* became an AQ connector earlier than did *haishi* (Li 2022). This suggests that *shi* does not need to be viewed as an abbreviation of *haishi*; it could have developed into a full-fledged AQ connector on its own.

2.3 The distribution of alternative question types in Sinitic languages

We classify AQs into five types by how alternative items are formally presented; two types (Type 1 and Type 2) use the implicitly-connecting strategy, and the other three (Type 3, Type 4, and Type 5) use the explicitly-connecting strategy. Type 1 contains structures whose alternative items are attached with *shi*, modal particles, or the zero marker. Type 2 distinguishes itself from Type 1 by using the question marker to introduce each alternative item; it constitudes a relatively transparent AQ construction as each option is question-marked. The other three types belong to the explicit-connection type; they connect alternative items with a conjunction (Type 3), a modal particle (Type 4), or the copula verb *shi* (Type 5). Type 4 can be subdivided into two groups depending on whether the modal particle is a PQ particle. Those that use non-PQ particles have a "full structure" (i.e. Type 1 AQ) in some Sinitic languages, while those that use PQ particles rarely have a Type 1 pair. This might be explained by the fact that, in Sinitic languages, the AQ expression containing two PQ particles would appear like a loose juxtaposition of two sentences rather than one integrated structure, as the PQ particle (i.e. *ma* 嗎) in Sinitic languages usually occurs at the sentence-final position, and each PQ particle would enclose a sentence unit if every alternative structure had a PQ particle attached.

Figure 1 shows the distribution of AQ types in Sinitic languages. See Appendix A for the language corresponding to each number.



Alternatives	Implicit connection	Explicit connection (distinguished by connectors type)		
		Conjunction	Modal particle (PQ/non-PQ)	Copula verb
non-question-marked	Type 1	Type 3	Type 4	Type 5
question-marked	Type 2			

Map data @ 2021 Google

Figure 1. The distribution of AQ marking strategies in Sinitic languages

It is noteworthy that the types using the implicitly-connecting strategy (Types 1 and 2) occur mainly in northern and central China with Type 1 clustering around the area of the Jin group; the eastern and southern regions are occupied by the types using the explicitly-connecting strategy (Types 3, 4, and 5), especially Type 3. As shown in §2.1 and §2.2, Type 1 and Type 2 coexist in some languages, but among the explicitly-connecting types (Types 3, 4, and 5), a language usually has only one dominant connector. Type 5 is used in two non-adjacent areas in the north and south, implying this pattern might have had a broader distribution in the past but now has been lost in certain areas. As for Type 4, it distributes from the northwest to the south, with the type using PQ particles concentrating in the west.

Overall, the most prominent differentiation of AQ in Sinitic languages is that the implicitly-connecting strategy is preferred in the north and the west, and the explicitly-connecting strategy, especially with the use of a question-aimed conjunction, is more dominant in the south and the east. What is the reason for such a distribution? In the next section, we extend our survey to other languages spoken in

East Asia. The extended survey yields an interesting picture in which a similar distinction between the implicitly-connecting type (Types 1 and 2) and the explicitly-connecting type (Types 3, 4, and 5) emerges.

3. Alternative questions in broader East Asian languages

3.1 Alternative question types in broader East Asian languages

In the non-Sinitic languages in our sample,[12] the way they present alternative items in the AQ form also follows the implicitly-connecting strategy or the explicitly-connecting strategy, and the structures of Types 1 through 5 are all attested in the sample. In addition, a new type of AQ (Type 6), which is formed by two PQs linked by a disjunctive conjunction, is attested in some non-Sinitic languages in East Asia. We shall give examples of each type and discuss their structural features in a follow-up.

In our sample, Type 1 of AQ is found in two Austroasiatic languages, Blang (Li et al. 1986) and Wa (Zhou & Yan 1984); one Hmong-Mien language, Songtao Hmong (Luo 2005); one Kra-Dai language, Tai in the Assam region of India (Morey 2005); and one Tungusic language, Kilen (Zhang Paiyu 2013). Examples from Blang and Songtao Hmong are shown in (25) and (26). Blang has a variant AQ in which the first irrealis marker is dropped and the remaining marker functions as a connector.

(25) **Blang**

a. *am²* *miʔ²* *hɤl¹*, *am²* *uʔ¹* *hɤl¹?*
if you go if I go
'Are you going or should I go?'

b. *luan¹-tiʔ⁴* *l̥aʔ¹* *hɤl¹* *thɛi¹* *naʔ⁴*, *am¹* *l̥aʔ¹* *hɤl¹* *kɯt²* *khiʔ¹?*
today will go plough land if will go chop wood
'Are you going to plow the fields or chop wood today?' (Li et al. 1986: 69)

(26) **Songtao Hmong**

ni⁴² *we²²* *muŋ²²* *ʈha⁵⁴* *wu⁴⁴*, *ni⁴²* *mu³¹* *muŋ²²* *ʈha⁵⁴* *wu⁴⁴?*
COP I go find he COP you go find he
'Should I go to find him or should you go to find him?' (Luo 2005: 213)

12. The sample presents the AQ types of languages of broader East Asia, as it contains some data from Southeast Asian and Central Asian languages. Historically those languages have been in constant contact with some Sinitic languages.

Another type that uses an implicitly-connecting strategy, Type 2, is more common than Type 1 in our non-Sinitic languages sample, especially in the languages of the northern area. Following Hölzl's (2018) survey, we find that most of the languages from the Turkic, Mongolic, Tungusic, Japonic, Ainuic, and Koreanic groups[13] tend to juxtapose alternatives to which are attached question suffixes to express AQ. A similar strategy can be seen in many Tibeto-Burman languages,[14] where a sentence-final question particle is used instead; this is quite similar to the Type 1 structure that uses a modal particle after each alternative. Here are two examples from Negidal and Zaiwa respectively:

(27) **Negidal** (Tungusic)
noŋan naa.bəjə-ni=ŋuu, naa-nɪ=ʊʊ?
3SG PN-3SG.POSS=Q PN-3SG.POSS=Q
'Is he a Negidal or a Nanai?' (Kazama 2002a: 80, as cited in Hölzl 2018: 295)

(28) **Zaiwa** (Sino-Tibetan)
*naŋ^{51} jɛ^{51} ʒa^{51} **lu^{ʔ31}**, ŋɔ^{51} jɛ^{51} ʒa^{51} **lu^{ʔ31}**?*
you go FUT Q I go FUT Q
'Are you going or should I go?' (Zhu 2011: 264)

Type 2 also appears in one Austroasiatic language, Semelai, and in one Austronesian language, Rukai. Semelai uses the interrogative particle *kha*, which is borrowed from Malay (Kruspe 2004). As for Rukai, its AQ structures consists of two PQs where the negator *ka-* is added to each of the questioned predicate (Zeitoun 2007). Overall, Types 1 and 2 are organized by the same intention: the speaker presents two propositions with uncertainty, which is conveyed by dubitative modal particles or question particles, and thus requires a decision about which one holds.

However, in some languages, just putting two questions together is not enough to formulate an AQ, and a connector is needed to connect the questions and clarify their relationship. In this way, Type 6 becomes the primary AQ formation device in a few East Asian languages: Lahu (Chang 1986), Jinuo (Gai 1986), Lüchun Hani (Li 1990), Mengsong Hani (Yang 2019), De'ang (Chen et al. 1986), Mêdog Tshangla (Zhang 1986), Khalkha (Janhunen 2012), Kazakh (Zhang 1991),

---

13. These languages are Buriat, Chahar Mongolian, Chalkan, Chitose Ainu, Dulong, Hatoma, Japanese, Kalmyk, Kazakh, Khalkha Mongolian, Khorchin Mongolian, Kilen, Korean, Manchu, Mongghul, Negidal, Oroqen, Puyuma, Rukai, Saru Ainu, Sarig Yughur, Semelai, Solon, Shor, Sibe, Udihe, Uyghur, Uilta, Ulcha, and Uzbek. The sources are listed in Appendix B.

14. These languages are Tamang, Qiang, Kucong, Jinuo, Woni Hani, Yidu, Achang, Zaiwa, Anong, Langsu, Burmese, Bisu, Sulung, Tshangla, and Geman. Their sources are also listed in Appendix B.

Uyghur (Litipu 2012), and Puyuma (Teng 2008). Usually, the connector is a general disjunctive conjunction, but Mêdog Tshangla uses a conjunction meaning 'if not' while Jinuo adopts a more complicated structure, as shown in (29):[15]

(29) **Jinuo**
nə^{42} *ɕo*^{42}*sɤŋ*^{33} *la*^{42}, *ku*^{55}*khœ*^{42}*vu*^{42}*lœ*^{33} *lɔ*^{42}*si*^{33} *la*^{42}*?*
you student Q or.AQ teacher Q
'Are you a student or a teacher?' (Gai 1986: 118)

In fact, Type 6 is widely used in the other languages as it makes evident the speaker's intention, not only inquiring about each proposition but also showing their alternative relationship by connectives. Type 6 is a loose composition of two short questions and also a common alternative to other AQ structures in conversations. Example (30) shows an example from Standard Mandarin.

(30) **Standard Mandarin**
你 吃 麵 嗎? 還是 吃 飯?
Ni^{214} *chi*^{55} *mian*^{51} *ma*^{55}*? hai*^{35}*shi*^{51} *chi*^{55} *fan*^{51}*?*
you eat noodles M.Q or.Q eat rice
'Do you want to eat noodles? Or eat rice?'

A further formal reduction occurs in Type 6 when only one question marker appears superficially. For instance, the deep structure of AQ in English is two polar questions being connected by *or* (Pruitt & Roelofsen 2011), though usually people only present the alternative part in the second question and thus simplify the whole interrogative structure. Types 6 and 2 are interchangeable under certain conditions, as documented in Qiang, Uyghur, Kazakh, and Korean, where a connective will be added into a Type 2 AQ if the speaker wants to externalize the alternative relation between the two options.

As for the other three types of AQ that use the explicitly-connecting strategy, they have different connectors to link non-question-marked alternatives. Type 5 uses copular verbs as connecters and appears in Bai, Dong, and Mulao; Type 4 is attested in Woni Hani, Kucong, Japhug rGyalrong, De'ang, Jüdu Gelao, Geman, Rouruo, Dhimal, Tshangla, Mêdog Tshangla Wutun, Bunu, and Atayal, whose connectors are question particles. In a few languages, the Type 4 AQ coexists with "the full structure type" (i.e. Type 2). For example, in Geman, the AQ can be expressed in the form of [A lai^{55}] [B lai^{55}] or [A lai^{55}] [B], where *lai*^{55} is a question particle. It is noteworthy that the Type 4 AQ with non-question particles as connectors is not attested in the non-Sinitic group. Type 3 uses conjunc-

15. The detailed label of *ku55 khœ42 vu42 lœ33* is not given in the references, but we find that *ku5* means 'again' and *lœ33* is a particle that connects the subject and verbs.

tions and mainly appears in the language groups in the southern area, such as Hmong-Mien (Aizhai Hmong, Baheng Hmong, She, Bunu, and Jiongnai), Austronesian languages (Paiwan, Amis, Kavalan, Saisiyat, and Huihui), Austroasiatic languages (Jing and Vietnamese), and Kra-Dai languages (Bouyei, Gelao, Laiji, Lao, Lin'gao, Maonan, Mulao, Pubiao, Shui, and Thai). Some Tibeto-Burman languages we sampled also have the AQ structures of Type 3, and a few of them borrow non-native alternative conjunctions from Sinitic languages (Xiandao, Kaduo Hani, Zhaozhuang Bai, Tujia, Kucong and Khatso), while the others use indigenous conjunctions (Southeastern Ngwi, Naxi, Lüchun Hani, Pumi, and Cona Tshangla).

In non-Sinitic languages, not all conjunctions used in Type 3 AQ are dedicated to questioning. Some languages use the same conjunction in declaratives which express *either… or*, such as Lüchun Hani, Southeastern Ngwi, Aizhai Hmong, Thailand Mien, Lao, Shui, and Amis. Example (31) is taken from Amis, in which the speaker's purpose can only be ascertained from the context. Some other languages give more clues, as shown in (32) in Lao, where *lùù3* (*either… or*) can also be used in AQs with the alternatives being marked by irrealis particles. Another interesting differentiation method is found in Lüchun Hani and Vietnamese (Hầu & Mạch 1994: 245, 299), where the connector occurs before each proposition to express *either… or*, but in the AQ structure, only one connector appears between the alternatives to express *whether… or*, as seen in Example (33).

(31) **Amis** (Zeng 1991: 260–261)

a. *ta'angaj-aj ku kuluŋ, anuza ta'anga-jaj ku əfa?*
big-normal.level SBJ bull or big-normal.level SBJ horse
'Is the bull bigger or the horse bigger?'

b. *u rumi'ami'ad adihaj ku dademaken anuza nikajki kami*
OBJ everyday many SBJ thing or have.a.meeting we
anulatek, matajal tu.
sometimes busy PRF
'With so much to do each day, or sometimes with meetings, we are so busy.'

(32) **Lao**

a. *caw^{4} siø caaj^{1} ngen^{2} lùù^{3} (vaa^{1}) khòòj^{5} siø pên^{3} phuø caaj^{1}?*
2SG.P IRR pay money or comp 1SG.P IRR COP MC.HUM pay
'Will you pay (the money), or shall I be the one to pay (it)?'

b. *mii²* *laang²* *qan³* *man²* *jaak⁵* *saj⁴* *haw²* *lùù³* *jaak⁵* *[khom¹* *haw²*
there.is some CLF.INAN 3.B want use 1.FA or want press 1.FA
long²].
descend
'There are some things (with regard to which) they want to use (take advantage of) us or want to oppress us.' (Enfield 2007: 460, 429)

(33) **Lüchun Hani**

a. *Maqnaaq haqlaq yaol diq sil,* *maqnaaq haqlaq nei kovq zaq.*
or tiger P bit dead or tiger SBJ bite dead
'Either kill the tiger or be eaten by the tiger.'

b. *Xaldei ceiq li maqnaaq xaldei kav li leil nol eil naoq?*
land plow go or land loose go OBJ you say M.IMP
'You decide–plow or loosen the soil?' (Li 1990: 194, 188)

The last phenomenon we want to highlight is that in Thai (Mullika 2017) and Thailand Mien (Saeliao 2014), the connector serving in AQ not only occurs in declaratives as a simple disjunctive conjunction, but also at the sentence-final position as a polar question marker. The example of *fai³³* in Thailand Mien is shown in (34) below. Thus far we have reached an interesting topic of multi-functionality of the connector in AQ, which will further our discussion about the source of question-aimed conjunctions in §4.1.

(34) **Thailand Mien**

a. *a³³tɛ³³* *fai³³* *a³³ma³³* *miŋ⁵³* *tɔ⁵³fuʔ³¹* *tɕwɔi⁵⁵?*
father or mother go pick.up children
'Does the father pick up the children or the mother?'

b. *mei⁵³* *ma:i⁵³* *i³³ɳuŋ³¹* *pun³³* *kin⁵⁵,* *miŋ⁵³* *fuŋ²⁴* *noŋ⁵³* *f ai³³* *tsou²⁴* *lai³³.*
you have two.kind give choose go pasture cattle or cook meal
'You have two choices, to pasture cattle or cook the meal.'

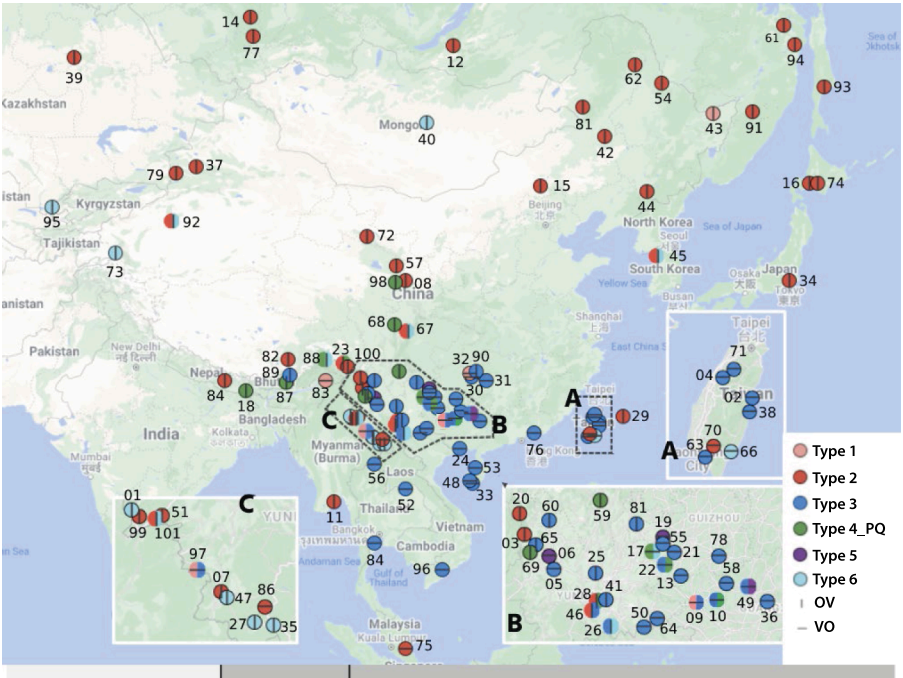
c. *nin⁵³* *miŋ⁵³* *xaʔ⁵⁵* *kam⁵³tsja²⁴* *ɳaʔ³¹* *fai³³?*
he go cut sugarcane PRF Q
'Has he gone to cut sugarcane?' (Saeliao 2014: 169, 285, 182)

So far, we have identified six types of AQ in sampled languages, some of which are slightly different in structure between Sinitic languages and the other broader East Asian languages. Types 1 and 2 use the implicitly-connecting strategy, but they distinguish themselves from each other by whether alternatives are question-marked; Type 2 is more common in the non-Sinitic languages, where the question markers tend to be placed behind alternatives. Types 3 through 6 use the explicitly-connecting strategy. Type 6 is different from the other three types as its alternatives are all question-marked. Types 3, 4, and 5 use conjunctions, modal particles, and copular verbs as connectors in AQ structures. In Type 3, the con-

junctions in the Sinitic sample are usually used exclusively for questions, whereas the conjunctions of some non-Sinitic languages can be used in declaratives. As for Type 4, the modal particles used as connectors are more diverse in Sinitic languages, whereas in the non-Sinitic sample, the question particles are more commonly accepted as connectors. Based on the six types we have outlined, we shall discuss the possible typological correlations related to AQ coding strategies, starting from the distribution of AQ types in the broader East Asian region.

3.2 The typological distribution of AQ types in East Asian languages

Figure 2 shows their distribution in East Asian languages beyond the Sinitic taxon. See Appendix B for the language corresponding to each number.



Alternatives	Implicit Connection	Explicit Connection (distinguished by connectors type)		
		Conjunction	Modal Particle (PQ/non-PQ)	Copula Verb
non-question-marked	Type 1	Type 3	Type 4	Type 5
question-marked	Type 2	Type 6		

Figure 2. The distribution of AQs in East Asian Languages (without Sinitic languages)

It is noteworthy that the north-to-south differentiation also appears in East Asian languages beyond Sinitic, where the implicitly-connecting type dominates in the north, and the explicitly-connecting type in the south. What factor(s) will affect the ways of presenting alternative items in AQs? We found that word order may play a key role here. Most northern languages in our sample belong to language families with the basic word order of OV (i.e. Turkic, Mongolic, Tungusic, Japonic, Ainu, and Koreanic); in contrast, VO is dominant in southern languages which belong to the Kra-Dai, Hmong-Mien, Austronesian and Austroasiatic families. As we would expect, another area with the implicitly-connecting type is the Tibetan-Burmese region, where OV is the dominant order. Given the obvious association of AQ and PQ, there is another metric to differentiate AQ structures, which is whether the alternative is encoded with the PQ marker. In our sample, the alternative item is more likely to be question-marked in OV languages, while the majority of VO languages do not require each alternative to come with a question marker. In Figure 3 We summarize in greater detail how East Asian languages (beyond the Sinitic group) express AQs.[16]

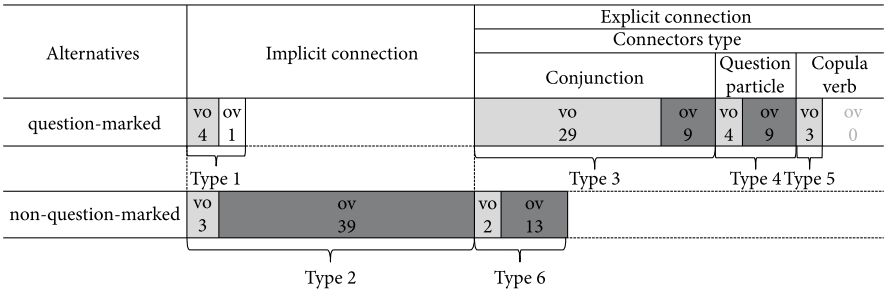


Figure 3. AQ strategies in OV and VO languages in East Asia (beyond the Sinitic group)

Figure 3 shows two criteria for classifying AQ structures: how the alternatives are connected and how the alternatives are marked. When alternatives are implicitly connected, each of them is more likely to appear with a question marker; however, when they are explicitly connected, they do not need to be question-marked in most cases. Therefore, the languages using Types 1 and 6 are fewer than the types formed by the same connection strategies as they "reverse" the typical combination of how alternatives are linked and how alternatives are marked.

16. Some languages have more than one method to code AQs, so the total number in the tables exceeds the number of languages we surveyed.

In terms of the correlation between word order and AQ type, Figure 3 shows that the explicitly-connecting strategy is widely applied in the VO group, while the implicit linking is more likely to be used in the OV group. However, Type 6, where the explicitly-connecting strategy is applied, is surprisingly more common in the OV group, suggesting that the alternative items of an AQ tend to appear with question markers in the OV languages. In contrast, only five VO languages in our sample have their alternatives question-marked in AQs. Among the other VO languages, only three of them (Blang, Songtao Hmong, and Wa) add an irrealis marker or a copular verb to each alternative, while the other VO languages require no marker to be attached to their alternatives. The VO languages in our sample prefer an explicit connector in AQs, and most of the connectors are conjunctions (29/36). Based on the above observation, we regard Types 2 and 3 to be typical AQ structures of the OV and VO languages we have surveyed. Type 2 connects alternatives implicitly and presents them with question markers; Type 3 uses conjunctions to connect alternatives, and they are not question-marked. Types 2 and 3 are also the two most common types of AQ in our sample.

The coding preference in non-Sinitic languages presented above has a clear bearing on the distribution of AQ types in Sinitic languages. As seen in §2.3, the explicit-connection type of AQ is more common in Sinitic languages, whose word order is VO, and Type 3 AQ is mostly distributed in southern and southeastern China, which are adjacent to the region where non-Sinitic VO languages are densely distributed. However, in north China, which is closer to the area populated by OV languages, the implicit-connection type of AQ emerges, but it is Type 1 rather than Type 2 that is more common in the Sinitic group.

Figure 4 shows the distribution of AQ types in East Asian languages with Sinitic languages included.

Alternatives	Implicit connection	Explicit connection (distinguished by connectors type)		
		Conjunction	Modal particle (PQ/non-PQ)	Copula verb
non-question-marked	Type 1	Type 3	Type 4	Type 5
question-marked	Type 2	Type 6		

Figure 4. The distribution of AQ in East Asian languages (with Sinitic languages)

We can see from the figure that Types 2 and 3 are the typical AQ structures of OV and VO languages respectively. Then, from north to south and west to east, in the OV-to-VO transition zone (which is mostly occupied by Sinitic languages) more atypical AQ structures emerge, such as Types 1, 5, and 4 of non-question particles as connectors. As for Type 6, it is used more like a variant and expressive form in many East Asian languages, especially OV languages which can optionally add a disjunctive conjunction between two short questions. In north-eastern China, some Sinitic languages stand out due to their use of the Type 3 AQ, most of which use the same AQ conjunction *haishi* as Mandarin. The exception could be explained by the fact that Standard Mandarin has a blend of features from northern and southern Sinitic languages (see Hu 1987; Lin 1987; Norman 1997, among others), so it uses a southern type AQ to push the front line of Type 3 far north. Overall, our observation is well in line with the idea of Hashimoto

(1978; 1983) that the languages in northern Asia have exerted a heavy influence on northern Chinese; for example, the implicitly-connecting strategy is allowed, and the modal particle can code an AQ alone in the northern Sinitic languages.

4. Towards an explanation of the typology

The above two sections have illustrated a variety of AQ types in East Asian languages. Going a step further, we venture to offer an explanation on how these diverse forms work to convey the AQ meaning. In § 4.1 we explain why the aforementioned AQ forms are capable of indicating AQs; In § 4.2 we shall discuss the possible source of some AQ-specific markers (i.e. the question-aimed conjunctions) and how word order affects the development of such conjunctions.

4.1 Why can AQs have diverse forms of expression?

The AQ has received much less scholarly attention than the other question types, and some theory-oriented studies consider AQs as a specific disjunction structure (Zimmermann 2000; Han & Romero 2004; Beck & Kim 2006; Biezma 2009; Pruitt & Roelofsen 2011; 2013; Erlewine 2014). We admit that there is adequate reason for theoretical linguists to do so not only because the English AQ contains the disjunctive connector *or*, but also because the semantic relation between disjunction and questionhood is also very close. Accrording to the Hamblin/Karttunen denotations of questions, "a question sets up a choice-situation between a set of propositions" (Hamblin 1976: 254), which resembles the function of disjunction that also introduces two or more propositions. Inquisitive Semantics (Groenendijk 2009; Ciardelli et al. 2018) suggests that a disjunctive structure will generate inquisitive meaning as it presents more than one possible proposition into the current conversational context, thus inviting the addressee to establish at least one update by choosing from among these propositions. This interaction-based view can explain why some languages have the same construction for disjunctive structures and AQs (e.g. Yucatec Maya as reported by AnderBois (2012) and Southeastern Ngwi, Aizhai Hmong, Thailand Mien, Lao, Shui, and Amis in our data).[17]

17. No sufficient studies have revealed if the intonation patterns are distinguished between disjunctive structures and AQs in these languages, given that in English, the pitch contours of alternatives alter between disjunctive structures and AQs (Zimmermann 2000; Han & Romero 2004; Beck & Kim 2006).

But at the same time, some languages arrange disjunctive markers differently in AQs and in simple disjunctions. For example, Lüchun Hani uses two prepositional disjunctive markers before each item in a simple disjunction, but puts one single marker between the alternative items in an AQ. This differentiation is also attested in Vietnamese in our data, and in some other languages beyond the East Asian region, such as Hausa (Jaggar 2001), Tangale (Haida 2011) and some western Iranian languages (Stilo 2004). This cross-linguistic phenomenon implies the alternatives are relatively loose and parallel in disjunction but bounded more closely by a higher relation in AQ, from which we can approach closer to the exact properties of AQ.

On the other hand, a question arises when a large number of the languages we surveyed have no disjunctive conjunctions like *or* in their AQ structures, but we cannot deny that there is also a disjunctive relationship between alternatives in AQs. Inquisitive Semantics suggests that the most crucial difference between AQs and disjunctive structures is that the information that one of the alternatives holds is part of the information in the case of disjunctive structures but is a presupposition in AQs, so a majority of AQ types in our sample have other strategies rather than using disjunctive conjunctions to hint at the presupposition.

Types 2 and 6 present each alternative with a PQ marker, so the alternatives are questioned one by one in a series of PQs, which are usually not expected to all be true. For example, in a context where tea and coffee are the two beverages being served, saying "yes" to "would you like tea" means saying "no" to "would you like coffee" because if you would like to have tea, then it means you would like the beverage that is not coffee. Therefore, the AQ structures of Types 2 and 6 imply that only one alternative will hold.

Type 1 consists of three forms. The first form contains two alternatives associated with irrealis markers (i.e. conditional markers, hypothetical markers, and modal particles). Mauri (2008: 186) explains the crucial role of symmetric irrealis markers in AQs: with irrealis markers, the state of affairs will not be regarded as having actually happened, so people will not present two states of affairs together due to their "temporal/causal sequentiality or simultaneity". Relatedly, in some Sinitic languages (e.g. Jin and some Central Mandarin varieties), the modal particles in Type 1 AQ have a tense-aspectual meaning, so when two propositions that occupy the same temporal slot are juxtaposed, the implication that only one can hold in the real world becomes evident. The second form of Type 1 AQ uses copula verbs to identify and focalize each alternative, making the items mutually contrastive so only one of them can hold as the answer. The third form of Type 1 presents alternatives without any additional markers. Usually, in this type of AQ, the semantic contrast between two alternatives is quite strong, and the coexistence of the alternatives is almost impossible, from which a mutually substitutable relation is established. Besides, in the zero-marked AQ, people have no way to know

the temporal/causal/coordinative relation of the listed items due to the lack of extra signals, so the non-coexisting meaning overrides other inferences.

As for Types 4 and 5, we presume that they are derived from the bisyndetic structures of Type 1 or Type 2, so they inherit the presupposition that only one alternative can hold from the "full structure", though they are now monosydetic. The bisyndetic and monosydetic AQ forms can coexist. As shown in §2.2 and §3.1, some languages have two variant forms of AQ, one of which keeps two attached markers, and the other only has one marker appearing in the connector position. Another parallel phenomenon we mentioned earlier in this section is that some languages use two disjunctive markers in the simple disjunctive structure but tend to drop one marker to form an AQ. The preference of the AQ for an explicit connector might imply a higher reciprocal-substitutional bond between the presented items, corresponding to the demand for people to select one as the answer.

The last is the Type 3 AQ which uses the question-aimed conjunction (Q-Conj for short). Given the diverse source forms of the connectors, we shall discuss one possible developmental path of Q-Conj in §4.2. Before turning to that, let us summarize the multiple functions of AQ connectors in Table 1. There is no obvious implicational hierarchy between the functions of these connectors, except that once a marker can be a disjunctive conjunction and question marker, it can be a Q-Conj in AQs. The most common feature of the five functions associated with the connector is that they all have the potential to introduce a set of mutually exclusive propositions into the current discussion. In this way, these grammatical items are eligible to form an AQ.

Table 1. Functions of connectors in the AQ structure

Examples	AQ-Conj	Disj-Conj	Question marker	Copula verb	Modal particle
hai^{35}*shi*^{51} (Mandarin)	+				
lə^{6} (Bunu)	+		+		
anuza (Amis)	+	+			
fai^{33} (Thailand Mien)	+	+	+		
tso (Bai)	+			+	
lei (Wu-Sinitic)	+				+

4.2 Question-aimed conjunction or connective-function question marker?

So far, we have referred to the conjunction dedicated to AQ as the question-aimed conjunction (Q-Conj), following the practice of previous studies. Previous investigations have attested Q-Conj in some European languages such as Finnish, Basque (Haspelmath 2004), as well as Polish, Belorussian, Albanian, Ukrainian, Georgian, Lezgian, and Dargi (Mauri 2007). Haspelmath (2004) defines the function of conjunctions like *or* as "standard disjunction", and that of *vai* of Finnish and *ala* of Basque as "interrogative disjunction"; the latter needs people to answer by making a choice. Mauri (2007; 2008) subsequently set two similar terms, "simple disjunction" and "choice-aimed disjunction" for the two conjunctions distinguished above. Luo (2013: 190) lists 32 languages[18] in China using Q-Conj, which he calls "interrogative *or*", distinguishing it from "declarative *or*". All of the above opinions tend to place Q-Conj as a special disjunctive conjunction, which is unsurprising considering that European languages, especially English, structurally contain a disjunctive conjunction in their AQ. This might lead us to overly focus on the role that the disjunctive conjunction plays in expressing an AQ.

Mauri (2007) claims that all the choice-aimed conjunctions she found only occur in questions, which from our point of view means that the choice-aimed conjunction is functionally closer to a question marker than a conjunction, not to mention that from typological data, a connector of an AQ is not necessarily a grammatical conjunction. We want to prove that some Q-Conjs actually used to be question markers in Type 2 AQ structures. When Type 2 drops one of its question markers and only keeps the one that stays between two alternatives, the remaining marker is given a connection-like function and then might develop into a real conjunction.

First, let us check Mauri's data. The Q-Conjs of Polish (*czy*), Ukrainian (*čy*) and Belorussian (*ci*) are similar in form and might have the same source. In Polish, *czy* is also a question particle occurring at the sentence-initial position (Swan 2002; Mauri 2008). The Q-Conj of Georgian is *tu*, which means 'if' as an irrealis particle (Aronson 1990: 88, 488). Albanian has four independent disjunctive conjunctions: *a, apo, o* and *ose* (Newmark et al. 1982: 303). *A* and *apo* are used in questions, *o* and *ose* in statements. It is interesting to note that *a* and *apo* are also used in polar questions, where *a* can be solely used at the sentence-initial position while *a…apo…* introduces two questioned items like *whether…or…* (Newmark et al. 1982: 319). The source of Albanian's Q-Conj is thus also a question marker though we are not sure if *apo* is constituted by *a* and

18. Luo's data includes Sinitic, Tibeto-Burman, Kra-Dai, Hmong-Mien, Austronesian, and Austroasiatic languages.

o. Mauri (2007) believes that *taχ̂ajt'a* in Lezgian is also a Q-Conj, but in our view it is a more complex-expressive structure that means 'if not' (Haspelmath 2011). As for Finnish, Basque, and Dargi, we have not yet found direct sources for the developments of their Q-Conjs; this requires further historical research.

Now let us turn back to the East Asian languages. According to historical research on AQs in Mandarin (Li 2022), *haishi* used to be a sentence-initial question particle in the Type 2 structure, and it could also appear in polar questions.[19] The AQ structure with two *haishi* can be seen in the Sinitic dialects of Shanxian (Zhang 2008), Gushi (Li 2003), Harbin (Jin 2003), Xishui (Fan 2010), and Yongshun (Peng 2019). Besides, we find that the Q-Conj *lə*^{6}*tɯ*^{2} of Bunu contains the question particle *lə*^{6}, given that *lə*^{6} can also connect alternatives in an AQ. It is evident that some non-Sinitic languages in China, such as Kaduo Hani (Q-Conj: *ma*^{55} *ʃ*^{55}) and Kucong (Q-Conj: *mʌ33sʅ33*), have borrowed their connectors from the Mandarin spoken nearby. The form *ma*^{55} *ʃ*^{55}is similar to *me shi* 嘛是 of Southwestern Mandarin (a local *lingua franca* that many Kaduo Hani people speak as a second language). In the Kunming dialect, when the modal particle *me*^{44} 嘛 combines with the copula *shi*^{21} 是, the whole phrase behaves more like a mature Q-Conj in that it can introduce a third alternative into the question. However, the modal-particle connectors in other Sinitic languages have no such function and they still use *haishi* to bring in a third alternative. What distinguishes *me*^{44}*shi*^{21} from other modal-particle connectors is that, in Kunming dialect, *me*^{44}or *me*^{44}*shi*^{21} can appear in the sentence-initial position to bring a topic into the discussion in the contexts of inquiry, suggestion, or expressing one's will, which enables *me*^{44}*shi*^{21} to be placed in front of alternatives in AQs. As for other Q-Conjs in East Asian languages, further historical research is required to find out where these Q-Conjs come from. As far as we know, at least the source meaning of the Q-Conj is inquisitive, or more generally, related to the non-affirmative.

At this point, we should perhaps take a fresh look at the "Q-Conj", which is more often a question/non-assertion marker with a connective function. In addition to the languages mentioned above, we also find this Q-Conj in two African VO languages, Dagara (Naapane 2015) and Dagbani (Issah 2015), where the sentence-initial question markers can link alternatives in AQs. We know from the distribution of AQ types in East Asia that VO languages are more likely to use

19. For example, *Zhuzi Yülei* (朱子語類 1270 C.E.) documented such polar questions; one example is 曰：「伯夷伊尹柳下惠力已至，但射不巧。孔子則既聖且智，巧力兼全。故孔子箭箭中的，三子者皆中垛也。」黃子功問：「『其至爾力，其中非爾力』，還是三子只有力無智否？」

an explicit linking strategy, in which the connectors of the "Q-Conj" type are also mostly attested. Based on our observation, then, a question/non-assertion marker at the sentence-initial position in a VO language is more likely to develop a linking function, thus becoming a dual-capacity word to directly code AQs.

Why does a sentence-initial question marker in VO languages have more potential to gain a connection function? The question marker with a connective role in AQ would be called a relator in the Functional Grammar framework (Dik 1997: 398); Dik suggests that the relator has its preferred position between two relata. In AQ structures, two kinds of question markers can appear in between alternatives, one of which is the postpositive type and the other is the prepositive type. The sentence-initial question marker belongs to the prepositive type as it appears at the initial position of the second alternative structure. The constituent positions of the two types of question markers are formulated in (35).

(35) a. [A] [q B]
b. [A q] [B]

The first format with a prepositive *q* does not exactly show in AQ types as this structure has developed into Type 3 AQ with *q* having become a relator. The second format [A q] [B] can be found in Type 4 AQ, where *q* appears between two alternatives but it is a postpositive *q*. Theoretically, prepositive *q* and postpositive *q* have the same chance of becoming a relator; however, their different constituent status makes it easier for the prepositive type to transform into a relator in VO languages.

Tsunoda et al. (1995) claim that the postposition in SOV languages is more likely to develop into a suffix, while the preposition in SVO languages tends to remain a free constituent that may develop into other independent grammatical elements. The structures of [A] [q B] and [A q] [B] could be respectively derived from [q A] [q B] and [A q] [B q], as we have already discussed in this section. The first step is to drop one question marker; however, within the language sample, some postpositive question markers in OV languages have developed into suffixes, so it is difficult to separate them as free elements and then take them away. Therefore, these OV languages keep two postpositive question suffixes in their AQ expressions, and it is hard for them to develop a structure like [A q] [B]. For these reasons, their postpositive question markers would not be reanalyzed as relators. When postpositive question markers in AQs are free particles, the structures of [A q] [B q] has the potential to drop the last *q* and change to [A q] [B], which happens both in OV and VO languages. Although the postpositive question particles can be functionally regarded as relators in the structure [A q] [B], we have not found any examples having transformed into a real conjunction in AQs in our sample. For VO languages, *q* in [A q] [B] does not occupy the expected position

of conjunctions, hindering the postpositive *q* from being reanalyzed as a conjunction. For OV languages that use postpositive conjunctions (e.g. Japanese), why the transformation did not happen needs further research.

In terms of prepositive question markers, we found them mostly appearing in VO languages, and all of these markers in VO languages are question particles that maintain the structural independency for further adjustment. Only one OV language, Dulong, has a prepositive question marker in our sample. However, the question marker has developed into a prefix in Dulong, so it is unlikely that this OV language would drop one question marker. Therefore, the bisyndetic structures [q A] [q B], which are only attested in VO languages, have more possibility to develop into [A] [q B], giving the prepositive question markers more potentiality to become relators. In addition to this, the prepositive *q* in [A] [q B] linearly occupies a conjunction's position in VO languages, so it is easier for the prepositive *q* to be reanalyzed as a conjunction.

As demonstrated in Figure 4, the continuum of AQ types in East Asia reflects a parallel continuum of relator types in AQs, from zero relator to the non-conjunction relator to the conjunction. In our data, some non-Sinitic languages with OV or VO order have borrowed a conjunction for their AQ from adjacent Sinitic languages, which results in a not entirely neat correspondence between AQ types and word order. From the perspective of areal typology, this comes as no surprise.

5. Conclusion

We have conducted a typological investigation of AQ coding strategies in Chinese and other East Asian languages and identified two criteria–how alternatives are connected and how they are marked–to distinguish six types of AQs. The alternatives in AQ structures can be connected using an implicit or explicit method. The former method only juxtaposes two alternative items while the latter links items with a connector. The most common connector is the conjunction, but the modal particle and the copular verb are also functionally used as connectors. As for the other criterion, each alternative in AQs can have a question marker attached or not, and non-question modal particles or copular verbs might appear with each alternative in the latter situation.

In our sample, the implicitly-connecting strategy of presenting alternatives is more likely to be used in OV languages, which also prefer the alternative items to be question-marked; by contrast, VO languages prefer the explicitly-connecting strategy, particularly when connecting items with a conjunction, and they allow their alternative items to appear without any markers. Therefore, the Type 2 AQ,

which uses the implicitly-connecting strategy and has its alternatives question-marked, is the typical AQ type of OV languages in East Asia. In contrast, Type 3, which uses the explicitly-connecting strategy and adds no markers to its alternatives, is the typical AQ structure for VO languages in this region. In Sinitic languages, the Type 3 AQ is mainly distributed in the southern and southeastern area, which is closer to the region of the VO languages group. In north China, which is closer to the area occupied by OV languages, the AQ type that connects alternatives implicitly emerges. However, the majority of Sinitic languages of this type add non-question markers to alternatives, which makes it an atypical structure in East Asia. The other three atypical AQ structures are Types 4, 5, and 6, all of which adopt explicit connectors to link alternatives. Type 6 is the least grammaticalized form; its alternatives are question-marked as well as connected by a conjunction. Types 4 and 5 use modal particles and copula verbs as their connectors, and they are mainly distributed in Sinitic languages in East Asia. Overall, with the above correlation between AQ strategies and word order, the atypical AQ types for this region are thus concentrated in Sinitic languages; they stretch from the northwest to the southeast, occupying the transition zone between two distinct linguistic areas in East Asia.

Finally, we discussed why a variety of structures can be employed to expressing AQ. We find that the so-called question-aimed conjunctions, which are used exclusively in AQs, are in fact likely to have developed from question markers at the initial position of sentences/clauses, and the word order of VO is more likely to trigger such changes.

Abbreviations

AQ	Alternative question
B	bare
CLF	classifier
COP	copula
FA	familiar
GEN	genitive
HUM	human
INAN	inanimate
IRR	irrealis
LOC	locative
M	modal particle

MC	modifier classifier
FUT	future
IMP	imperative
NMLZ	nominalizer
OBJ	object
P	patient-like argument of canonical transitive verb
PQ	Polar question
PRF	perfect
PROG	progressive
PST	past
Q	question marker
Q-Conjs	Question-Aimed conjunctions
SBJ	subject
SG	singular
TOP	topic

Appendix A. AQ structures and AQ types of Sinitic languages

Map code	Language	AQ structure	AQ type	Source
01	Anlu 安陸	A+haishi 還是+B	Type 3	Sheng 2010: 112
02	Baihe 白河	A+man^{0} 麼+B	Type 4_Non-PQ	Ke 2013: 375
03	Beijing 北京	A+還是+B	Type 3	Investigated by author
04	Bijie 畢節	A+嗡+B	Type 4_Non-PQ	Ming 2007: 367
05	Binyang 賓陽	A+tsi^{22}+B	Type 3	Qin 2007: 109
06	Changde 常德	A+是+B	Type 5	Yi 2007: 333
07	Changzhi 長治	A+咪/咧+B+咪/咧	Type 1	Wang 2007: 164
08	Chengdu 成都	A+ua^{1}哇+B	Type 4_PQ	Zhang et al. 2001: 342
09	Dongkou 洞口	A+shi 是+B shi 是+A+ shi 是+B	Type 5 Type 1	Wang 2019: 36
10	Fengcheng 豐城	A+a還/asi還是+B	Type 3	Chen 2012: 177, 178
11	Fufeng 扶風	A+嗎+B	Type 4_PQ	Wu 2005: 325

Appendix A. *(continued)*

Map code	Language	AQ structure	AQ type	Source
12	Fuping 富平	A+麼+B	Type 4_PQ	Li Hong 2003: 70, 71, 72
		A+嘛+B	Type 4_Non-PQ	
13	Fuzhou 福州	A+固是+B	Type 3	Chen 2015: 253
14	Ganzhou 甘州	A+shi 是+B	Type 5	Gao 2009: 58
15	Guangzhou 廣州	A+定+B	Type 3	Peng 2010: 118
16	Guanling 關嶺	A+me^{44}+B	Type 4_PQ	Lu 2020: 47
17	Gushi 固始	haishi 還是+A+ haishi 還是+B	Type 2	Li Xiaoxian 2003: 33
		A+haishi 還是+B	Type 3	
18	Gutang 古塘	A+a啊+B+ a啊	Type 1	Wu 2006: 26, 27
		A+ a啊+B	Type 4_Non-PQ	
19	Guyi 古邑	A+還係+B	Type 3	Lian et al. 2010: 285, 286
		A+啊+B	Type 4_Non-PQ	
20	Haimen 海門	A+勒+B+啊	Type 1	Wang 2011: 334
21	Hancheng 韓城	A+嗎+B	Type 4_Non-PQ	Akitani & Xu 2016: 316
22	Harbin 哈爾濱	A+haishi 還是+B	Type 3	Jin 2003: 55
		haishi 還是+A+haishi 還是+B	Type 2	
23	Hejin 河津	A+呀+B+呀	Type 1	Shi 2004: 279, 280
		A+呀+B	Type 4_Non-PQ	
24	Hengshan 衡山	A+æ˩ 唉+B+ læ˩ 唻	Type 1	Peng 1999: 300
25	Heshun 和順	A+B	Type 1	Guo 2015: 281 Guo 2020: 21
		A+ya呀/li 哩/lan 蘭+B+ ya呀/li 哩/lan 蘭	Type 1	
		A+ia也+B	Type 4	
26	Hezhou 賀州	A+dingshi 定是/gashi 咖是+B	Type 3	Liu 2011: 42
		A+sih 是+B	Type 5	
27	Huojia 獲嘉	sih 是+A+ sih 是+B	Type 1	He 2018: 57
		A+B	Type 1	
28	Jian'ou 建甌	A+故是+B	Type 3	Jiang 2015: 56

Appendix A. *(continued)*

Map code	Language	AQ structure	AQ type	Source
29	Jiayi 嘉義	A+抑是+B	Type 3	Zhang et al. 2010: 211
30	Jingbian 靖邊	A+是+B	Type 5	Guo 2015: 273, 275, 276
		A+B	Type 1	
		是+A+是+B	Type 1	
31	Jining 濟寧	A+haishi 還是+B	Type 3	Ge & Shi 2017: 93
32	Jizhao 吉兆	A+a 啊+B	Type 4_Non-PQ	Chen 2019: 126
33	Kunming 昆明	A+mə 麼+B	Type 4_Non-PQ	Investigated by author
34	Lanzhou 蘭州	A+ma 嗎+B	Type 4_PQ	Ding 2015: 41
35	Liancheng 連城	A+ əʔ va˥ sɪəɹ 抑還是+B	Type 3	Xiang 1997: 377
36	Lianshan 連山	A+ʃɛŋ^{21}剩是+B	Type 3	Zhang 2020: 78, 79
		A+是+B	Type 5	
37	Lianshui 漣水	A+ xɛ^{35} 還+B	Type 3	Hu 2011: 269
38	Linchuan 臨川	A+啊+B	Type 4_Non-PQ	Zhang Lan 2019: 14, 15
		A+啊+B+嘞	Type 1	
39	Linxia 臨夏	A+mu^{3}麼+B	Type 4_Non-PQ	Xie & Zhang 1990: 143
40	Lipu 荔浦	A+還是+B	Type 3	Pan 2017: 134
41	Longkou 龍口	A+是+B	Type 5	Ma 2007: 16
42	Loufan 婁煩	A+是+B	Type 5	Guo 2015: 275, 284
		A+勒+B+勒	Type 1	
43	Luoping 羅平	A+麼+B	Type 4_Non-PQ	Yu 2018: 76
44	Neihuang 內黃	A+喲+B+也	Type 1	Li 2016: 133
45	Ningbo 寧波	A+還+B	Type 3	Ruan 2009: 150
46	Pingle 平樂	A+si^{33}+B	Type 5	Zhang & Lin 2009: 238
47	Pingshan 平山	A+唔是+B	Type 3	Wei 2019: 141

Appendix A. *(continued)*

Map code	Language	AQ structure	AQ type	Source
48	Pingyao 平遙	A+B	Type 1	Guo 2015: 274, 281
		A+哩+B	Type 4	
49	Putao 葡萄	A+是+B	Type 5	Liang 2005: 332
		A+照是/張是+B	Type 3	
50	Putian 莆田	A+a^{11}還+B	Type 3	Huang 1996
51	Qianjiang 潛江	A+還是+B	Type 3	Xu & Guan 2019: 60
52	Qishan 岐山	A+嗎+B	Type 4_PQ	Wu & Han 2016: 383
53	Ruicheng 芮城	A+mA^{0}嗎+B	Type 4_PQ	Lü 2016: 16
54	Shandan 山丹	A+uã^{1} ʂʅ^{1}么是+B	Type 4_PQ	He 2007: 396
55	Shanghai 上海	A+e伊/ŋi呢+B	Type 4_Non-PQ	Lao 2014: 8
56	Shangmayang 上麻陽	A+啊+B	Type 4_Non-PQ	Zhang Junhao 2019: 60
		A+曼+B	Type 4_Non-PQ	
57	Shanxian 陝縣	A+哩+B+哩	Type 1	Zhang 2008: 156, 157, 164
		A+是+B	Type 5	
		還是+A+還是+B	Type 2	
		是+A+是+B	Type 1	
58	Shaodong 邵東	A+還是+B	Type 3	Liu 2014: 17
59	Shaoxing 紹興	A+ ləʔ^{53}嘞+B	Type 4_Non-PQ	Sheng 2014: 362
		A+還/還是+B	Type 3	
60	Shenmu 神木	A+ ləʔ^{4} 嘞+B+ ləʔ^{4} 嘞	Type 1	Xing 2002: 594
61	Shicheng 石城	A+a^{453}啊+B	Type 4_Non-PQ	Zeng 2010: 86
		A+xai^{24}還/ xai^{24}ts'u^{53}還就+B	Type 3	
62	Suiyang 綏陽	A+唆+B	Type 4_Non-PQ	Yao 2007: 42
63	Susong 宿松	A+ æ 啊+B+ æ 啊	Type 1	Tang 2005: 251
64	Suzhou 蘇州	A+ ləʔ^{55}勒+B	Type 4_Non-PQ	Li 1998: 127, 128

Appendix A. *(continued)*

Map code	Language	AQ structure	AQ type	Source
65	Taihu 太湖	A+嘞+B	Type 4_Non-PQ	Yang 2017: 34
66	Taixing 泰興	A+還係+B	Type 3	Lan 2008: 298
67	Taiyuan 太原	A+呀/嘞/咪+B+呀/嘞/咪 還是+A+還是+B	Type 1 Type 2	Li 2005: 118
68	Tangbu 塘堡	是+A+是+B A+是+B	Type 1 Type 5	Xiao 2005: 228
69	Tengxian 藤縣	A+是+B A+鄭是+B	Type 5 Type 3	Tang 2013: 43
70	Tiantai 天臺	A+aʔ阿+B	Type 4_Non-PQ	Dai 2006: 105
71	Tongxin 同心	A+ma 嗎+B	Type 4_PQ	Zhang 2000: 285
72	Urumqi 烏魯木齊	A+嗎+B A+嗎+B+嗎	Type 4_PQ Type 2	Li & Wan 2012: 87
73	Weifang 濰坊	A+還是+B	Type 3	Weifang Normal School 1990: 240
74	Weishan 微山	A+還是+B	Type 3	Yin 2008: 290
75	Wenzhou 溫州	A+啊+B	Type 4_Non-PQ	Zheng 2009: 94
76	Wubu 吳堡	A+是+B A+la:^{0}啦+B+ləʔ^{0}嘞 A+B	Type 5 Type 1 Type 1	Guo 2015: 274, 275 Xing & Wang 2014: 407
77	Wudi 無棣	A+呃+B+呃 A+呃+還是+B+呃	Type 1 Type 3	Zhang 2015: 365
78	Wuhan 武漢	A+還是+B 是+A+啊+是+B+啊	Type 3 Type 1	Zhao 2012： 174
79	Wuxiang 武鄉	A+B A+嘞/呀/來+B+嘞/呀/來	Type 1 Type 1	Shi 2002: 65
80	Xi'an 西安	A+嘛+B	Type 4_Non-PQ	Lan 2011: 355
81	Xiamen 廈門	A+aʔㄐ si˩ 抑是/ iaʔㄐ si˩ 野是+B	Type 3	Zhou & Ouyang 1998: 406
82	Xiangyin 湘陰	A+a^{24}啊+B; A+啊是+B	Type 4_Non-PQ	Long 2015: 22
83	Xingxian 興縣	A+啊+B	Type 4_Non-PQ	Gao 2014: 23

Appendix A. *(continued)*

Map code	Language	AQ structure	AQ type	Source
84	Xinhua 新化	A+咬+B	Type 4_Non-PQ	Zhou 2010: 53
85	Xishui 習水	A+麼/咬+B	Type 4_Non-PQ	Fan 2010: 29, 30
		A+還是+B	Type 3	
		還是+A+還是+B	Type 2	
86	Xüpu 溆浦	A+a啊+B+ a啊	Type 1	Zhang Ping 2013: 32
		A+還是+B	Type 3	
87	Yangjiang 陽江	A+乜/乜係+B	Type 3	Huang 1996
88	Yifeng 宜豐	A+ æ^{33}啊+B+ læ^{33}叻	Type 1	Shao 2010: 69
89	Yining 義寧	是+A+是+B	Type 1	Zhou 2005: 268
		A+是+B	Type 5	
90	Yiyang 益陽	A+a^{45} 阿/a^{45} z$_1$^{21} 阿是 +B	Type 4_Non-PQ	Xu 2001: 300
91	Yongji 永濟	A+嗎+B	Type 4_PQ	Shang 2018: 38
		A+呀+B+呀	Type 1	
92	Yongshun 永順	是+A+是+B	Type 1	Peng 2019: 104
		還是+A+還是+B	Type 2	
		A+還是+B	Type 3	
93	Yueyang 岳陽	A+還是+B	Type 3	Yang 2015: 35
94	Yulin 玉林	A+阿是+B	Type 3	Liang 2010: 214
95	Yushe 榆社	A+呀/哇/嘞+B+呀/哇/嘞	Type 1	Li 2007: 245
96	Zaozhuang 棗莊	A+是+B	Type 5	Wang 1990: 94
		A+B	Type 1	
97	Zhangqiu 章丘	A+是+B	Type 5	Zhao 2007: 62
		是+A+是+B	Type 1	
		A+還是+B	Type 3	
98	Zhangzhou 漳州	A+ah$^{121-21}$si^{22}抑是+B	Type 3	Huang 2008: 28
99	Zibo 淄博	A (啊)+是+B (啊)	Type 5	Bi 2008: 19
		A (啊)+還是+B (啊)	Type 3	
100	Zunyi 遵義	A+ mæ˥嘿+B	Type 4_Non-PQ	Hu 2010: 666

Appendix B. AQ structures and AQ types of non-Sinitic languages in broader East Asia

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
01	luxi1238	Achang	Sino-Tibetan	A+laꓶ+B+laꓶ (Type 2)	OV	Dai & Cui 1985: 78, 79
02	amis1246	Amis	Austronesian	A+anuza+B (Type 3)	VO	Zeng 1991: 260, 261
03	nung1282	Anong (Nung)	Sino-Tibetan	A+ mɛ^{53} +B+ mɛ^{53} (Type 2)	OV	Sun & Liu 2005: 128
04	atay1247	Atayal	Austronesian	A+quw ɣaʔ +B (Type 3)	VO	Huang 1996: 266
05	sout2730	Bai	Sino-Tibetan	A+ tsoꓶ +B (Type 5)	VO	Xu & Zhao 1984: 90
06	sout2730	Zhaozhuang Bai	Sino-Tibetan	A+ ŋ̍i^{55} ɔ^{42} +B (Type 3)	VO	Zhao Zhenyan 2009: 169
07	bisu1244	Bisu	Sino-Tibetan	A+la^{31}+B+la^{31} (Type 2)	OV	Xu 1998: 146
08	bona1250	Bonan	Mongolic-Khitan	A-si+B-si (Type 2)	OV	Fried 2010: 263
09	blan1242	Blang	Austroasiatic	A+am^{1}+B (Type 3) am^{2}+A+ am^{2}+B (Type 1)	VO VO	Li et al. 1986: 69
10	buna1273	Bunu	Hmong-Mien	A+ lə^{6}tɯ^{2}+B (Type 3) A+ lə^{6}+B (Type 4_PQ)	VO VO	Meng 2001: 122
11	nucl1310	Burmese	Sino-Tibetan	A+ လား +B+ လား (Type 2)	OV	Wang 1997: 457
12	chin1476	Buriat	Mongolic-Khitan	A-g+B-g (Type 2)	OV	Yamakoshi 2006: 153, as cited in Hölzl 2018: 220
13	bouy1240	Bouyei	Kra-Dai	A+ mɯ^{5}+B (Type 3)	VO	Yu 1980: 56
14	chel1242	Chalkan	Turkic	A-ma+B-me (Type 2)	OV	Erdal et al. 2013: 98, as cited in Hölzl 2018: 350
15	chah1241	Chahar Mongolian	Mongolic-Khitan	A+uu+B+juu (Type 2)	OV	Dao 1983: 135, 136
16	ainu1240	Chitose Ainu	Ainuic	A-he+ya+B-he+ya (Type 2)	OV	Bugaeva 2004: 88, as cited

Appendix B. *(continued)*

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
						in Hölzl 2018: 107
17	pala1336	De'ang (Palaung)	Austroasiatic	A+ʔaŋ+B (Type 4_PQ) ʔaŋ+A? B? (Type 6)	VO VO	Chen et al. 1986: 95, 99
18	dhim1246	Dhimal	Sino-Tibetan	A+na+B (Type 4_PQ)	OV	King 2009: 289
19	nort2735	Dong	Kra-Dai	A+ ɕi^{6} +B (Type 5)	VO	Liang 1980a: 58
20	drun1238	Dulong (Drung)	Sino-Tibetan	maˀ-A+ maˀ-B (Type 2)	OV	Sun 1982: 176
21	nort3188	Bigong Gelao	Kra-Dai	A+sɔ^{33}+B (Type 3)	VO	Li et al. 2014: 240
22	whit1267	Jüdu Gelao	Kra-Dai	A+ ha^{31} sɿ^{35} +B (Type 3) A+maŋ^{33} +B (Type 4_PQ)	VO VO	Kang 2009: 151
23	miju1243	Geman (Kman)	Sino-Tibetan	A+lai^{55}+B+ lai^{55} (Type 2) A+lai^{55}+B (Type 4_PQ)	OV OV	Li 2002: 197
24	viet1252	Gin	Austroasiatic	A+hai^{1}la^{2}+B (Type 3)	VO	Ouyang et al. 1984: 117
25	bika1252	Kaduo Hani (Bi-Ka)	Sino-Tibetan	A+ma^{55} ʃɿ^{55}+B (Type 3)	OV	Zhao Min 2009: 176
26	hani1248	Lüchun Hani (Hani)	Sino-Tibetan	A+aq/laq+maqnaaq+B+aq/laq (Type 6) A+maqnaaq+B (Type 3)	OV OV	Li 1990: 188
27	akha1246	Mengsong Hani (Akha)	Sino-Tibetan	A+la^{31}+ba^{55} ɣɤ^{31} +B+ la^{31} (Type 6)	OV	Yang 2019: 128
28	honi1244	Woni Hani (Honi)	Sino-Tibetan	A+ lɔ^{55}+B (Type 4_PQ) A+ lɔ^{55}+B+ lɔ^{55} (Type 2)	OV OV	Yang 2016: 258
29	hato1238	Hatoma	Japonic	A-kajaa+B-kajaa (Type 2)	OV	Lawrence 2012: 397, as cited in Hölzl 2018: 184

Appendix B. *(continued)*

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
30	west2430	Aizhai Hmong (Western Xiangxi Miao)	Hmong-Mien	A+pei^{35} ni^{2}+B (Type 3)	VO	Yu 2010: 319
31	pahn1237	Baheng Hmong (Pa-Hng)	Hmong-Mien	A+ ɕi^{53} tʰɔ^{33}+B (Type 3)	VO	Mao & Li 1997: 62
32	west2430	Songtao Hmong (Western Xiangxi Miao)	Hmong-Mien	ɳi^{42} +A+ɳi^{42}+B (Type 1)	VO	Luo 2005: 213
33	tsat1238	Huihui (Tsat)	Austronesian	A+ ʔa^{33} ti^{11} +B (Type 3)	VO	Zheng 1997: 101
34	nucl1643	Japanese	Japonic	A+ka+B+ka (Type 2)	OV	Hinds 1984: 159f as cited in Hölzl 2018: 167
35	youl1235	Jinuo (Youle Jinuo)	Sino-Tibetan	A+la^{42}+ku^{55}khœ^{42}vu^{42}lœ^{33} +B+la^{42} (Type 6)	OV	Gai 1986: 118
36	jion1236	Jiongnai	Hmong-Mien	A+ ke^{43} ʃei^{22} +B (Type 3)	VO	Mao & Li 2002: 80
37	kalm1244	Kalmyk	Mongolic-Khitan	A-iy+B-iy (Type 2)	OV	Benzing 1985: 42f, as cited in Hölzl 2018: 230
38	kava1241	Kavalan	Austronesian	A+uu+B (Type 3)	VO	Chang 2000: 149
39	kaza1248	Kazakh	Turkic	A+ma+B+ma (Type 2)	OV	Zhang 1991: 99, 105
40	mong1331	Khalkha Mongolian	Mongolic-Khitan	A-uu+eswel+B-uu (Type 6)	OV	Janhunen 2012: 221, as cited in Hölzl 2018: 225
41	kats1235	Khatso	Sino-Tibetan	A+ mɛ^{33} sɿ^{55}+B (Type 3)	OV	Mu 2003: 119
42	peri1253	Khorchin Mongolian	Mongolic-Khitan	A-ʊʊ+B-ʊʊ (Type 2)	OV	Yamakoshi 2015: 292, as cited in Hölzl 2018: 228
43	kile1243	Kilen	Tungusic	A+si/nə +B+si/nə (Type 1)	OV	Zhang Paiyu 2013: 161

Appendix B. *(continued)*

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
44	kore1280	Jilin Korean	Koreanic	A-ka+B-ka (Type 2)	OV	Xuan et al. 1985: 94
45	kore1280	Korean	Koreanic	A-kka+B-kka (Type 2) A-ni+ animyen+B-ni (Type 6)	OV OV	Sohn 1994: 20, 122, as cited in Hölzl 2018: 205
46	kuco1235	Kucong	Sino-Tibetan	A+mʌ^{33} sɪ^{33}+B (Type 3) A+ŋi^{31}+B+ŋi^{31} (Type 2)	OV OV	Chang 2009: 188, 189
47	lahu1235	Lahu	Sino-Tibetan	A+la^{3}+ma^{3} xe^{6} lɛ^{1}+B+la^{3} (Type 6)	OV	Chang 1986: 71
48	hlai1239	Lai (Hlai)	Kra-Dai	A+tsha^{3}+B (Type 3)	VO	Yuan 1994: 155
49	hlai1239	Zhiqiang Lai (Hlai)	Kra-Dai	A+si^{11}+B (Type 3)	VO	Zhang 2010: 246
50	lach1248	Laji (Lachi)	Kra-Dai	A+ a^{44} ɕo^{44}+B (Type 3)	VO	Li 2000: 185
51	maru1249	Langsu (Maru)	Sino-Tibetan	A+la^{31}+B+la^{31} (Type 2)	OV	Dai 2005: 113
52	laoo1244	Lao	Kra-Dai	A+lùù^{3} (vaa^{1})+B (Type 3)	VO	Enfield 2007: 460
53	ling1270	Lin' gao	Kra-Dai	A+ha^{3} ti^{4}+B (Type 3)	VO	Liang & Zhang 1997: 85
54	manc1252	Manchu	Tungusic	A-no/o+B-no/o (Type 2)	OV	Hauer 2007: 67, as cited in Hölzl 2018: 306
55	maon1241	Maonan	Kra-Dai	A+wo^{3}+B (Type 3)	VO	Liang 1980b: 83
56	mien1242	Thailand Mien	Hmong-Mien	A+ fai^{33}+B (Type 3)	VO	Saeliao 2014: 169
57	huzh1238	Mongghul	Mongolic-Khitan	A-niu+B-niu (Type 2)	OV	Åkerman 2012: 14, as cited in Hölzl 2018: 239
58	gela1264	Mulao	Kra-Dai	A+a^{6} si^{6}+B (Type 3) A+sɪ+B (Type5)	VO VO	Wang & Zheng 1980: 87; Yin 2012: 265
59	nasu1236	Nasu-Nosu	Sino-Tibetan	A+daꓥ+B (Type 4_PQ)	OV	Chen et al. 1985: 166

Appendix B. *(continued)*

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
60	naxi1245	Naxi	Sino-Tibetan	A+ nɯ˥+B (Type 3)	OV	He & Jiang 1985: 98; He 1987: 115
61	negi1245	Negidal	Tungusic	A-uu+B-uu (Type 2)	OV	Kazama 2002a: 80, as cited in Hölzl 2018: 295
62	oroq1238	Oroqen	Tungusic	A+joomee+B+joomee (Type 2)	OV	Hu 2001: 158
63	paiw1248	Paiwan	Austronesian	A+manu+B (Type 3)	VO	Chen & Ma 1986: 91
64	qabi1235	Pubiao	Kra-Dai	A+ha:i^{213} ʂʅ^{213}+B (Type 3)	VO	Liang et al. 2007: 77
65	pumi1242	Pumi	Sino-Tibetan	A+dai^{13}+B (Type 3)	OV	Lu 2001: 204
66	puyu1239	Puyuma	Austronesian	A? andri^{7}+B? (Type 6)	VO	Teng 2008: 223
67	upst1234	Qiang	Sino-Tibetan	A-ɑ+ŋuaɳ+B-ɑ (Type 6) A-ɑ+B-ɑ (Type 2)	OV OV	LaPolla 2003: 239
68	japh1234	Japhug rGyalrong	Sino-Tibetan	A+ɕi+B (Type 4_PQ)	OV	Jacques 2021: 460
69	zauz1238	Rouruo (Zauzou)	Sino-Tibetan	A+ne^{55}+B (Type 4_PQ)	OV	Sun et al. 2002: 149
70	ruka1240	Rukai	Austronesian	A-ka+B-ka (Type 2)	VO	Zeitoun 2007: 380, 381
71	sais1237	Saisiyat	Austronesian	A+a: /hi: +B (Type 3)	VO	Ye 2000: 152
72	west2402	Sarig Yughur	Turkic	A-mi+B-mi (Type 2)	OV	Roos 2000: 152, as cited in Hölzl 2018: 349
73	sari1246	Sarikoli	Indo-European	A+o+naji+B+o (Type 6)	OV	Gao 1985: 65
74	hokk1250	Saru Ainu	Ainuic	A-he+B-he (Type 2)	OV	Tamura 2000: 234, as cited in Hölzl 2018: 105
75	seme1247	Semelai	Austroasiatic	A+kah+B+kah (Type 2)	VO	Kruspe 2004: 326
76	shee1238	She	Hmong-Mien	A+a^{1}kin^{1}+B (Type 3)	VO	Mao & Meng 1986: 81, 84

Appendix B. *(continued)*

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
77	shor1247	Shor	Turkic	A-be+B-pa (Type 2)	OV	Donidze 1997: 505, as cited in Hölzl 2018: 350
78	then1235	Shui	Kra-Dai	A+ɣo^{3} si^{3}+B (Type 3)	VO	Zhang 1980: 74
79	sibe1252	Sibe	Tungusic	A-na+B-na (Type 2)	OV	Zikmundová 2013: 49, as cited in Hölzl 2018: 308
80	solo1263	Solon	Tungusic	A+guu+B+guu; A-gi+B-gi (Type 2)	OV	Hu & Chaoke 1986: 141; Chaoke 2009: 316
81	sout3212	Southeastern Ngwi	Sino-Tibetan	A+no^{33}+B (Type 3)	OV	Qu 2011: 243
82	sulu1241	Sulung	Sino-Tibetan	A+bia^{r55}+B+ bia^{r55} (Type 2)	OV	Li 2004: 166
83	assa1264	Assam Tai	Kra-Dai	A+B (Type 1)	VO	Morey 2005: 351
84	east2347	Tamang	Sino-Tibetan	A-wa+B-ki (Type 2)	OV	Mazaudon 2017: 488
85	thai1261	Thai	Kra-Dai	A+ rɯː^{14}+B (Type 3)	VO	Mullika 2017: 130
86	sout2743	Tailue Thai	Kra-Dai	A+haː^{33}+B+haː^{33} (Type 2)	VO	Yan 2018: 371
87	tsha1245	Tshangla	Sino-Tibetan	A+mo+B (Type 4_PQ)	OV	Andvik 2010: 192, 193
88	tsha1245	Mêdog Tshangla	Sino-Tibetan	A+moɻ+B (Type 4_PQ) A+moɻʔmaɻ ŋi˥ la+Bʔ (Type 6)	OV OV	Zhang 1986: 156
89	tsha1245	Cona Tshangla	Sino-Tibetan	A+taʋni˥+B (Type 3)	OV	Lu 1986: 107, 108
90	nort2732	Tujia	Sino-Tibetan	A+xo^{21}+B (Type 3)	OV	Tian et al. 1986: 105
91	udih1248	Udihe	Tungusic	A-nu+B-nu (Type 2)	OV	Nikolaeva & Tolskaya 2011: 812, as cited in Hölzl 2018: 94
92	uigh1240	Uyghur	Turkic	A-mu+yaki+B-m (Type 6)	OV	Litipu 2012: 368

Appendix B. *(continued)*

Map code	Glottocode	Language	Family	AQ structure (AQ type)	Word order	Source
				A-mu+B-mu (Type 2)	OV	
93	orok1265	Uilta (Orok)	Tungusic	A+yyuu+B+yyuu (Type 2)	OV	Hölzl 2018: 304
94	ulch1242	Ulcha	Tungusic	A-nʊʊ+B-nʊʊ (Type 2)	OV	Kazama 2002b: 86, as cited in Hölzl 2018: 302
95	nort2690	Uzbek	Turkic	A-mi+jʌki+B-mi (Type 6)	OV	Cheng & Abudureheman 1987: 148
96	viet1252	Vietnamese	Austroasiatic	A+hay là+B; A+hay+B (Type 3)	VO	Hầu & Mạch 1994: 299; Ruan 2007: 17
97	awac1238	Wa (Awa)	Austroasiatic	daɯh mɔh+A+daɯh mɔh+B (Type 1)	VO	Zhou & Yan 1984: 97, 68
				mɔh+A, daɯh mɔh+B (Type 3)	VO	
98	wutu1241	Wutun	Sino-Tibetan	A-mu, B (Type 4_PQ)	OV	Sandman 2016: 292, as cited in Hölzl 2018: 266
99	xian1249	Xiandao	Sino-Tibetan	A+la^{51}+ mɤ^{55} ʂʅ^{35}+B+la^{51} (Type 6)	OV	Dai et al. 2005: 139
100	idum1241 (Idu)	Yidu	Sino-Tibetan	A+a^{31}+B+a^{31} (Type 2)	OV	Jiang 2005: 172
101	zaiw1241	Zaiwa	Sino-Tibetan	A+lu^{55}+a^{31} ŋut^{55} ʒɿ^{31}+B+lu^{55} (Type 6)	OV	Zhu 2011: 264
				A+lu^{55}+B+lu^{55} (Type 2)	OV	

References

Åkerman, Vesa. 2012. Inflection of finite verbs in Mongghul. *SIL Electronic Working Papers* 2012–003. (https://www.sil.org/resources/archives/49117) (Accessed 2023-01-05.)

Akitani, Hiroyuki & Xu, Pengbiao. 2016. *Hancheng fangyan diaocha yanjiu*. Beijing: Zhonghua Book Company.

AnderBois, Scott. 2012. Focus and uninformativity in Yucatec Maya questions. *Natural Language Semantics* 20(4). 349–390.

Andvik, Erik E. 2010. *A grammar of Tshangla*. Leiden: Brill.

Aronson, Howard Isaac. 1990. *Georgian: A reading grammar*. Corrected edition. Columbus: Slavica.

Beck, Sigrid & Kim, Shin-Sook. 2006. Intervention effects in alternative questions. *Journal of Comparative Germanic Linguistics* 9(3). 165–208.

Benzing, Johannes. 1985. *Kalmückische Grammatik zum Nachschlagen*, vol. 1. Weisbaden: Otto Harrassowitz Verlag.

Bi, Lihua. 2008. *Wangcun town dialect interrogative sentences research of Zibo in Shandong province*. Xi'an: Northwest University. (Master's Thesis.)

Biezma, Maria. 2009. Alternative vs. polar questions: The cornering effect. In Cormany, Ed & Ito, Satoshi & Lutz, David (eds.), *SALT 19: Proceedings of the 19th Semantics and Linguistics Conference*, 37–54. Ithaca: CLC Publications.

Bugaeva, Anna. 2004. *Grammar and folklore texts of the Chitose dialect of Ainu: Idiolect of Ito Oda*. Kyoto: Endangered Languages of the Pacific Rim (ELPR).

Bybee, Joan L. & Perkins, Revere Dale & Pagliuca, William. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Chang, Hongen (ed.). 1986. *Lahuyu jianzhi*. Beijing: The Ethnic Publishing House.

Chang, Junzhi. 2009. *Yuanjiang Kuconghua cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Chang, Yung-li. 2000. *Gamalanyu cankaoyufa*. Taipei: Yuan-Liou Publishing Company.

Chao, Yuen Ren. 1968. *A grammar of spoken Chinese*. Berkeley: University of California Press.

Chaoke, Dualr Osor. 2009. *Ewenkeyu cankao yufa*. Beijing: China Social Sciences Press.

Chen, Kang & Ma, Rongsheng (eds.). 1986. *Gaoshanzu yuyan jianzhi: Paiwanyu*. Beijing: The Ethnic Publishing House.

Chen, Shilin & Bian, Shiming & Li, Xiuqing (eds.). 1985. *Yiyu jianzhi*. Beijing: The Ethnic Publishing House.

Chen, Xiangmu & Wang, Jingliu & Lai, Yongliang (eds.). 1986. *De'angyu jianzhi*. Beijing: The Ethnic Publishing House.

Chen, Xiaohe. 2012. *Fengcheng Gan fangyan yufa yanjiu*. Beijing: Beijing World Publishing Corporation.

Chen, Yangmei. 2019. *The reference grammar of Ji Zhao in Guangdong Wuchuan*. Nanning: Guangxi University. (Master's Thesis.)

Chen, Zeping. 2015. *Fuzhou fangyan de jiegou yu yanbian*. Beijing: People's Publishing House.

Cheng, Shiliang & Abudureheman (eds.). 1987. *Wuzibiekeyu jianzhi*. Beijing: The Ethnic Publishing House.

Ciardelli, Ivano & Groenendijk, Jeroen & Roelofsen, Floris. 2018. *Inquisitive semantics*. New York: Oxford University Press.

Comrie, Bernard. 2008. The areal typology of Chinese: Between North and Southeast Asia. In Redouane, Djamouri & Barbara, Meisterernst & Sybesma, Rint (eds.), *Chinese linguistics in Leipzig*. (Collection des Cahiers de Linguistique Asie Orientale 12), 1–22. Paris: École des hautes études en Sciences sociales, Centre de recherches linguistiques sur l'Asie orientale.

Dai, Qingxia. 2005. *Langsuyu yanjiu*. Beijing: The Ethnic Publishing House.

Dai, Qingxia & Cong, Tiehua & Jiang, Ying & Li, Jie. 2005. *Xiandaoyu yanjiu*. Beijing: China Minzu University Press.

Dai, Qingxia & Cui, Zhichao (eds.). 1985. *Achangyu jianzhi*. Beijing: The Ethnic Publishing House.

Dai, Zhaomin. 2006. *Tiantai fangyan yanjiu*. Beijing: Zhonghua Book Company.

Dao, Bu (ed.). 1983. *Mengguyu jianzhi*. Beijing: The Ethnic Publishing House.

Dik, Simon Cornelis. 1997. *The theory of functional grammar, part 1: The structure of the clause*. 2nd edn. Berlin: Mouton de Gruyter.

Ding, Yihuan. 2015. *Research on modal particles in Lanzhou dialect*. Lanzhou: Northwest Normal University. (Master's Thesis.)

Dixon, R. M. W. 2012. *Basic linguistic theory, volume 3: Further grammatical topics*. New York: Oxford University Press.

Donidze, Gajoz I. 1997. Shorskij Jazyk. In Jarceva, V. N. & Solncev, V. M. & Tolstoj, N. I. & Tenishev, E. R. (eds.), *Jazyki mira: T'urkskije jazyki*, 497–506. Moscow: Indrik.

Enfield, Nicholas J. 2007. *A grammar of Lao* (Mouton Grammar Library 38). Berlin: Mouton de Gruyter.

Erdal, Marcel & Nevskaya, Irina & Nugteren, Hans & Rind-Pawlowski, Monika (eds.). 2013. *Handbuch des Tschalkantürkischen, Teil 1: Texte und Glossar* (Turcologica 97). Wiesbaden: Harrassowitz Verlag.

Erlewine, Michael Yoshitaka. 2014. Alternative questions through focus alternatives in Mandarin Chinese. In Beltrama, Andrea & Chatzikonstantinou, Tasos & Lee, Jackson L. & Pham, Mike & Rak, Diane (eds.), *CLS 48: Proceedings of the 48th Meeting of the Chicago Linguistic Society*, 221–234. Chicago: Chicago Linguistic Society.

Fan, Yan. 2010. *Xishui fangyan yiwenju yanjiu*. Changsha: Hunan University. (Master's Thesis.)

Fried, Robert Wayne. 2010. *A grammar of Bao'an Tu, a Mongolic language of Northwest China*. Buffalo: SUNY Buffalo State University. (Doctoral dissertation.)

Gai, Xingzhi (ed.). 1986. *Jinuoyu jianzhi*. Beijing: The Ethnic Publishing House.

Gao, Erqiang (ed.). 1985. *Tajikeyu jianzhi*. Beijing: The Ethnic Publishing House.

Gao, Tianxia. 2009. Lun Ganzhou fangyan de yiwenju. *Hexi Xueyuan Xuebao* 2009(3). 55–58.

Gao, Yang. 2014. *Studies on the interrogative sentences of Shanxi Xingxian dialect*. Taiyuan: Shanxi University. (Master's Thesis.)

Ge, Sijia & Shi, Xiuju. 2017. Interrogative sentence in Jining dialect. *Journal of Jining University* 38(6). 91–95.

Givón, Talmy. 2001. *Syntax: An introduction, vol. 2*. Amsterdam: John Benjamins.

Groenendijk, Jeroen. 2009. Inquisitive Semantics and Pragmatics. (Paper presented at the Stanford Workshop on Language, Communication and Rational Agency, Stanford, 30–31 May 2009.)

Guo, Lixia. 2015. *Hanyu fangyan yiwenju bijiao yanjiu: Yi Qin Jin Meng sandi weili*. Tianjin: Nankai Daxue Chubanshe.

Guo, Miao. 2020. *A study of the interrogative sentence in Shanxi Heshun dialect*. Taiyuan: Shanxi University. (Master's thesis.)

Haida, Andreas. 2011. On the semantics and pragmatics of yes/no-questions, yes/no-question disjunctions, and alternative questions: Evidence from Chadic. (manuscript.)

Hamblin, Charles L. 1976. Questions in Montague English. In Partee, Barbara H. (ed.), *Montague grammar*, 247–259. New York: Academic Press.

Han, Chung-hye & Romero, Maribel. 2004. Disjunction, focus, and scope. *Linguistic Inquiry* 35(2), 179–217.

Harris, Zellig. 1978. The interrogative in a syntactic framework. In Hiż, Henry (ed.), *Questions*, 1–35. Dordrecht: D. Reidel.

Hashimoto, Mantaro. 1976. The agrarian and the pastoral diffusion of language. In Hashimoto, Mantaro (ed.), *Genetic relationship, diffusion and typological similarities of East and Southeast Asian languages: Papers of the 1st Japan-U.S. Joint Seminar on East and Southeast Asian Linguistics*, 1–14. Tokyo: Japan Society for the Promotion of Science.

Hashimoto, Mantaro. 1978. *Gengo ruikei chiriron*. Tokyo: Kobundo.

Hashimoto, Mantaro. 1983. The development of Northern Chinese. *Yuyan Yanjiu* 1983(1). 88–99.

Haspelmath, Martin. 2004 (ed.). *Coordinating constructions*. Amsterdam: John Benjamins.

Haspelmath, Martin. 2011. *A grammar of Lezgian*. (Mouton Grammar Library 9). Berlin: Walter de Gruyter.

Hauer, Erich. 2007. *Handwörterbuch der Mandschusprache*. 2nd edn. Weisbaden: Otto Harrassowitz Verlag. (Edited by Corff, Oliver.)

Hầu, Hàn Giang & Mạch, Vi Lượng (eds.). 1994. *Từ diên Hán-Việt* (*Han yue ci dian*). Beijing: The Commercial Press.

He, Fang. 2018. *Henan Huojiaxian fangyan yiwenfanchou yanjiu*. Tianjin: Tianjin Normal University. (Master's thesis.)

He, Jiren & Jiang, Zhuyi. 1985. *Naxiyu jianzhi*. Beijing: The Ethnic Publishing House.

He, Maohuo. 2007. *Shandan fangyanzhi*. Lanzhou: Gansu People's Publishing House.

He, Zhiwu. 1987. *Naxiyu jichuyufa*. Kunming: Yunnan Nationalities Publishing House.

Hengeveld, Kees. 1990. A functional analysis of copula constructions in Mandarin Chinese. *Studies in Language* 14(2). 291–323.

Hinds, John. 1984. Japanese. In Chisolm, Williams S. (ed.), *Interrogativity: A colloquium on the grammar, typology and pragmatics of questions in seven diverse languages, Cleveland, Ohio, October 5th, 1981–May 3rd, 1982* (Typological Studies in Language 4), 145–188. Amsterdam: John Benjamins.

Hölzl, Andreas. 2018. *A typology of questions in Northeast Asia and beyond: An ecological perspective*. Berlin: Language Science Press.

Hu, Guangbin. 2010. *Zunyi fangyanyufa yanjiu*. Chengdu: Bashu Publishing House.

Hu, Mingyang. 1987. *Beijinghua chutan*. Beijing: The Commercial Press.

Hu, Shiyun. 2011. *Lianshui fangyan yanjiu*. Beijing: Zhonghua Book Company.

Hu, Zengyi & Chaoke, Dular Osor (eds.). 1986. *Ewenkeyu jianzhi*. Beijing: The Ethnic Publishing House.

Hu, Zengyi. 2001. *Elunchunyu yanjiu*. Beijing: The Ethnic Publishing House.

Huang, Borong (ed.). 1996. *Hanyu fangyan yufa leibian*. Qingdao: Qingdao Publishing House.

Huang, C.-T. James. 1998. *Logical relations in Chinese and the theory of grammar*. New York: Garland.

Huang, Lillian M. 1996. Interrogative constructions in Mayrinax Atayal. *Bulletin of National Taiwan Normal University* 41. 263–296.

Huang, Shufen. 2008. *Zhangzhou fangyan lianci yanjiu*. Fuzhou: Fujian Normal University. (Master's thesis.)

Issah, Samuel Alhassan. 2015. An analysis of interrogative constructions in Dagbani. *Journal of West African Languages* 42(1), 45–63.

Jacques, Guillaume. 2021. *A grammar of Japhug*. Berlin: Language Science Press.

Jaggar, Philip J. 2001. *Hausa*. (London Oriental and African Language Library 7). Amsterdam: John Benjamins.

Janhunen, Juha A. 2012. *Mongolian*. (London Oriental and African Language Library 19). Amsterdam: John Benjamins.

Jiang, Di. 2005. *Yiduyu yanjiu*. Beijing: The Ethnic Publishing House.

Jiang, Jie. 2015. *A research on the grammar of Jian'ou dialect*. Fuzhou: Fujian Normal University. (Master's Thesis.)

Jin, Mei. 2003. Harbin fangyanzhong de xuanze wenju. *Hanzi Wenhua* 2003(2). 55–57.

Kang, Zhongde. 2009. *Judu Gelaoyu cankaoyufa*. Beijing: China Minzu University. (Doctoral dissertation.)

Karttunen, Lauri. 1977. Syntax and semantics of questions. *Linguistics and Philosophy* 1(1). 3–44.

Kazama, Shinjiro (ed.). 2002a. *Negidal texts and grammar* (Publications on Tungus Languages and Cultures 19). Kyoto: Endangered Languages of the Pacific Rim (ELPR).

Kazama, Shinjiro (ed.). 2002b. *Ulcha oral literature 2: A collection of texts* (Publications on Tungus Languages and Cultures 20). Kyoto: Endangered Languages of the Pacific Rim (ELPR).

Ke, Xigang. 2013. *Baihe fangyan diaocha yanjiu*. Beijing: Zhonghua Book Company.

King, John T. 2009. *A grammar of Dhimal*. Leiden: Brill.

König, Ekkehard & Siemund, Peter. 2007. Speech act distinctions in grammar. In Shopen, Timothy (ed.), *Language typology and syntactic description*, vol. 1, 276–324. New York: Cambridge University Press.

Kruspe, Nicole. 2004. *A grammar of Semelai*. New York: Cambridge University Press.

Lan, Binhan. 2011. *Xi'an fangyan yufa diaocha yanjiu*. Beijing: Zhonghua Book Company.

Lan, Yuying. 2008. *Taixing Kejia fangyan yanjiu*. Beijing: Culture and Art Publishing House and China Social Sciences Press.

Lao, Xueting. 2014. *The interrogative system of Shanghai dialect and the syntactic analysis of its interrogative markers*. Shanghai: Shanghai International Studies University. (Master's thesis.)

LaPolla, Randy J. 2003. *A grammar of Qiang: With annotated texts and glossary*. Berlin: Mouton de Gruyter. (Edited by Huang, Chenglong.)

Lawrence, Wayne P. 2012. Southern Ryukyuan. In Tranter, Nicholas (ed.), *The languages of Japan and Korea*, 381–411. New York: Routledge.

Li, Charles N. & Sandra A. Thomson. 1981. *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.

Li, Daoyong & Nie, Xizhen & Qiu, Efeng. 1986. *Bulangyu jianzhi*. Beijing: The Ethnic Publishing House.

Li, Daqin. 2002. *Gemanyu yanjiu*. Beijing: The Ethnic Publishing House.

Li, Daqin. 2004. *Sulongyu yanjiu*. Beijing: The Ethnic Publishing House.

Li, Gaiyang. 2005. Questions in Shanxi dialects. *Shanxi Daxue Xuebao (Zhexue Shehuikexue Ban)* 28(3). 116–119.

Li, Hong. 2003. *Fuping fangyan yanjiu*. Xi'an: Shanxi Normal University. (Master's thesis.)

Li, Jianxiao. 2007. *Yushe fangyan yanjiu*. Taiyuan: Shanxi People's Press.

Li, Wenlong & Wan, Xiaohui. 2012. Xinjiang Hanyu fangyan zhong biaoxuanze de 'ma'. *Yili Shifanxueyuan Xuebao (Shehuikexue Ban)* 2012(3). 87–89.

Li, Xia & Li, Jinfang & Luo, Yongxian. 2014. *A grammar of Zoulei, Southwest China*. Bern: Peter Lang.

Li, Xiaofan. 1998. *Suzhou fangyan yufa yanjiu*. Beijing: Peking University Press.

Li, Xiaoxian. 2003. *Gushi fangyan wenjuxitong kaocha*. Wuhan: Central China Normal University. (Master's thesis.)

Li, Xinyi. 2022. *Cong leixingxue kan Hanyu xuanzewen de duolujing yanbian*. Hong Kong: The Hong Kong University of Science and Technology. (Manuscript.)

Li, Xuejun. 2016. *Henan Neihuang fangyan yanjiu*. Beijing: China Social Science Press.

Li, Yongsui. 1990. *Haniyu yufa*. Beijing: The Ethnic Publishing House.

Li, Yunbin. 2000. *Lajiyu yanjiu*. Beijing: China Minzu University Press.

Lian, Chunzhao & Hou, Xiaoying & Liu, Liheng. 2010. *Kejia Guyi fangyan*. Guangzhou: South China University of Technology Press.

Liang, Fugen. 2005. *Yangshuo Putao Pingshenghua yanjiu*. Nanning: Guangxi Nationalities Publishing House.

Liang, Min. 1980a. *Dongyu jianzhi*. Beijing: The Ethnic Publishing House.

Liang, Min. 1980b. *Maonanyu jianzhi*. Beijing: The Ethnic Publishing House.

Liang, Min & Zhang, Junru. 1997. *Lin'gaoyu yanjiu*. Shanghai: Shanghai Far East Publishers.

Liang, Min & Zhang, Junru & Li, Yunbing. 2007. *Pubiaoyu yanjiu*. Beijing: The Ethnic Publishing House.

Liang, Zhongdong. 2010. *Yulinhua yanjiu*. Chengdu: Southwest Jiaotong University Press.

Lin, Tao. 1987. The origin of the Beijing Mandarin. *Zhongguo Yuwen* 1987(3). 161–169.

Litipu, Tuohuti. 2012. *Xiandai Weiueryu cankaoyufa*. Beijing: China Social Sciences Press.

Liu, Xiaojuan. 2014. *The investigation and research of interrogative sentences in the dialect of Shao Dong – A handbook for grammatical investigation and research as the key link*. Changsha: Hunan Normal University. (Master's thesis.)

Liu, Yuliang. 2011. *The research on interrogative sentences of Hezhou local dialect*. Shanghai: Shanghai Normal University. (Master's thesis.)

Long, Qin. 2015. *The research of interrogative sentence in the dialect of Xiangyin in Hunan Province*. Changsha: Hunan Normal University. (Master's thesis.)

Lu, Enlan. 2020. *Interrogation research of Guanling dialect*. Kunming: Yunnan Normal University. (Master's thesis)

Lu, Shaozun. 1986. *Cuona Menbayu jianzhi*. Beijing: The Ethnic Publishing House.

Lu, Shaozun. 2001. *Pumiyu fangyan yanjiu*. Beijing: The Ethnic Publishing House.

Lü, Jia. 2016. *Shanxi Ruicheng fangyan yiwenju yanjiu*. Shanxi University. (Master's thesis.)

Luo, Anyuan. 2005. *Songtao Miaohua miaoxieyufaxue*. Beijing: China Minzu University Press.

Luo, Tianhua. 2013. *Interrogative strategies: An areal typology of the languages of China*. Konstanz: University of Konstanz. (Doctoral dissertation.)

Ma, Zhihong. 2007. *The research on question in Longkou dialect*. Jinan: Shandong Normal University. (Master's thesis.)

Mao, Zongwu & Li, Yunbing. 1997. *Bahengyu yanjiu*. Shanghai: Shanghai Far East Publishers.

Mao, Zongwu & Li, Yunbing. 2002. *Jiongnaiyu yanjiu*. Beijing: China Minzu University Press.

Mao, Zongwu & Meng, Chaoji. 1986. *Sheyu jianzhi*. Beijing: The Ethnic Publishing House.

Mauri, Caterina. 2007. Conjunctive, disjunctive and adversative constructions in Europe. In Ramat, Paolo & Roma, Elisa (eds.), *Europe and the Mediterranean as linguistic areas: Convergencies from a historical and typological perspective*, 183–213. Amsterdam: John Benjamins.

Mauri, Caterina. 2008. The irreality of alternatives: Towards a typology of disjunction. *Studies in Language* 32(1). 22–55.

Mazaudon, Martine. 2017. Tamang. In Thurgood, Graham & LaPolla, Randy J. (eds.), *The Sino-Tibetan languages*, 2nd edn, 468–493. New York: Routledge.

Mei, Tsu-lin. 1978. The origin of the disjunctive question in Modern Chinese. *Bulletin of the Institute of History and Philology of Academia Sinica* 49(1). 15–36.

Meng, Chaoji. 2001. *Yaozu Bunuyu fangyan yanjiu*. Beijing: The Ethnic Publishing House.

Ming, Shengrong. 2007. *Bijie fangyan yanjiu*. Beijing: China Social Sciences Press.

Morey, Stephen. 2005. *The Tai languages of Assam: A grammar and texts*. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, the Australian National University.

Mu, Shihua. 2003. *Kazhuoyu yanjiu*. Beijing: The Ethnic Publishing House.

Mullika, Duangpakdee. 2017. *Similarities and differences between Chinese and Thai interrogative sentences and strategies for teaching Chinese interrogative sentences*. Wuhan: Central China Normal University. (Doctoral dissertation.)

Naapane, Faustina Marius. 2015. *Interrogatives in Dagara*. Accra: University of Ghana. (Master's thesis.)

Newmark, Leonard & Hubbard, Philip & Prifti, Peter. 1982. *Standard Albanian: A reference grammar for students*. Stanford: Stanford University Press.

Nikolaeva, Irina & Tolskaya, Maria. 2011. *A grammar of Udihe*. Berlin: Mouton de Gruyter.

Norman, Jerry. 1997. Some thoughts on the early development of Mandarin. In Yue-Hashimoto, Anne O. & Endo, Tamaki (eds.), *In memory of Mantaro J. Hashimoto*, 21–28. Tokyo: Uchiyama Shoten.

Ouyang, Jueya & Cheng, Fang & Yu, Cuirong. 1984. *Jingyu jianzhi*. Beijing: The Ethnic Publishing House.

Pan, Dalian. 2017. *A study on the grammar of Lipu dialect*. Nanning: Guangxi University. (Master's thesis.)

Peng, Hui. 2019. *The grammatical study of Yongshun in Hunan Province*. Changsha: Hunan Normal University. (Doctoral dissertation.)

Peng, Xiaochuan. 2010. Yue fangyan (Guangzhouhua) yiwen fanchou yanjiu. In Shao, Jingmin & Zhou, Juan & Peng, Xiaochuan & Shao, Yi & Gan, Yuen & Zeng, Yiping (eds.), *Hanyu fangyan yiwen fanchou bijiao yanjiu*, 107–124. Guangzhou: Jinan University Press.

Peng, Zerun. 1999. *Hengshan fangyan yanjiu*. Changsha: Hunan Education Publishing House.

Pruitt, Kathryn & Roelofsen, Floris. 2011. Disjunctive questions: Prosody, syntax, and semantics. (Paper presented at a seminar at the Georg August Universität, Göttingen, 12 April 2011).

Pruitt, Kathryn & Roelofsen, Floris. 2013. The interpretation of prosody in disjunctive questions. *Linguistic Inquiry* 44(4). 632–650.

Qin, Dongsheng. 2007. *A grammatical of Binyang dialect*. Nanning: Guangxi University. (Master's thesis.)

Qu, Huifeng. 2011. *Sanguanzhai Yiyu cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Roos, Martina Erica. 2000. *The Western Yugur (Yellow Uygur) language: Grammar, texts, vocabulary*. Leiden: University of Leiden. (Doctoral dissertation.)

Ruan, Guijun. 2009. *Ningbo fangyan yufa yanjiu*. Wuhan: Central China Normal University Press.

Ruan, Qingsong. 2007. *On the differences of the interrogative in Vietnamese and Chinese and the different points in teaching*. Nanning: Guangxi Minzu University. (Master's thesis.)

Saeliao, Thanyalak. 2014. *Taiguo Mianyu cankaoyufa*. Beijing: China Social Science Press.

Sandman, Erika. 2016. *A grammar of Wutun*. Helsinki: University of Helsinki. (Doctoral dissertation.)

Shang, Tongxin. 2018. Yongji fangyan yiwenju yanjiu. *Hanzi Wenhua* 2018(16). 37–39.

Shao, Jingmin & Zhou, Juan & Peng, Xiaochuan & Shao, Yi & Gan, Yuen & Zeng, Yiping. 2010. *Hanyu fangyan yiwen fanchou bijiao yanjiu*. Guangzhou: Jinan University Press.

Shao, Yi. 2010. Gan fangyan (Yifeng hua) yiwen fanchou yanjiu. In Shao, Jingmin & Zhou, Juan & Peng, Xiaochuan & Shao, Yi & Gan, Yuen & Zeng, Yiping (eds.), *Hanyu fangyan yiwen fanchou bijiaoyanjiu*, 59–73. Guangzhou: Jinan University Press.

Sheng, Yimin. 2014. *The reference grammar of Shaoxing Keqiao Wu dialect*. Tianjin: Nankai University. (Doctoral dissertation.)

Sheng, Yinhua. 2010. *Anlu fangyan yufa yanjiu*. Wuhan: Central China Normal University Press.

Shi, Sufen. 2002. Shanxi Wuxiang fangyan de xuanze wenju. *Yuwen Yanjiu* 2002(2). 63–65.

Shi, Xiuju. 2004. *Hejin fangyan yanjiu*. Taiyuan: Shanxi People's Publishing House.

Sohn, Ho-Min. 1994. *Korean* (Descriptive Grammars). London: Routledge.

Song, Jinlan. 1993. Ganqing Hanyu xuanzewenju de tedian. *Minzu Yuwen* 1993(1). 32–36.

Stilo, Donald. 2004. Coordination in three Western Iranian languages: Vafsi, Persian and Gilaki. In Haspelmath, Martin (ed.), *Coordinating constructions*, 269–330. Amsterdam: John Benjamins.

Sun, Hongkai (ed.). 1982. *Dulongyu jianzhi*. Beijing: The Ethnic Publishing House.

Sun, Hongkai & Huang, Chenglong & Zhou, Maocao. 2002. *Rouruoyu yanjiu*. Beijing: China Minzu University Press.

Sun, Hongkai & Liu, Guangkun. 2005. *Anongyu yanjiu*. Beijing: The Ethnic Publishing House.

Swan, Oscar E. 2002. *A grammar of contemporary Polish*. Bloomington: Slavica.

Tamura, Suzuko. 2000. *The Ainu language*. Tokyo: Sanseido.

Tang, Aihua. 2005. *Susong fangyan yanjiu*. Beijing: Culrture and Art Publishing House.

Tang, Yiping. 2013. *The study on the interrogative sentences of Tengxian dialect*. Jinhua: Zhejiang Normal University. (Master's thesis.)

Teng, Stacy Fang-Ching. 2008. *A reference grammar of Puyuma, an Austronesian language of Taiwan*. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, Australian National University.

Tian, Desheng & He, Tianzhen, & Chen, Kang & Li, Jingzhong & Xie, Zhimin & Peng, Xiumo (eds.). 1986. *Tujiayu jianzhi*. Beijing: The Ethnic Publishing House.

Tsunoda, Tasaku & Ueda, Sumie & Itoh, Yoshiaki. 1995. Adpositions in word-order typology. *Linguistics* 33(4). 741–761.

Wang, Danian. 1997. *Miandianyu gailun*. Beijing: Peking University Press.

Wang, Hongzhong. 2011. *Haimen fangyan yanjiu*. Beijing: Zhonghua Book Company.

Wang, Jun & Zheng, Guoqiao (eds.). 1980. *Mulaoyu jianzhi*. Beijing: The Ethnic Publishing House.

Wang, Li. 2007. *Changzhixian fangyan yanjiu*. Taiyuan: Shanxi People's Press.

Wang, Pan. 2019. *A study of questions in Gan dialect of Dong Kou*. Guangzhou: Jinan University. (Master's thesis.)

Wang, Xiwen. 1990. Zaozhuang fangyan yufa tedian xugao. *Zaozhuang Xueyuan Xuebao* 1990(3). 91–95.

Wei, Cuiping. 2019. *The grammar study of Pingnan Pingshan dialect in Guangxi*. Nanning: Guangxi University. (Master's thesis.)

Weifang Normal University (ed.). 1990. *Weifang fangyan yu putonghua*. Jinan: Shandong University Press.

Wu, Qingfeng. 2006. *Lianyuanshi Gutang fangyan yiwenju yanjiu*. Changsha: Hunan Normal University. (Master's thesis).

Wu, Xiaozhi. 2005. *Fufeng fangyan*. Urumqi: Xinjiang University Press.

Wu, Yuan & Han, Baoyu. 2016. *Qishan fangyan diaochayanjiu*. Beijing: Zhonghua Book Company.

Xiang, Mengbing. 1997. *Liancheng Kejiahua yufa yanjiu*. Beijing: Language and Culture Press.

Xiao, Wanping. 2005. *Yongfu Tangbao Pinghua yanjiu*. Nanning: Guangxi Nationalities Publishing House.

Xie, Xiaoan & Zhang, Shumin. 1990. Gansu Linxia fangyan de yiwenju. *Lanzhou Daxue Xuebao* 1990(3). 141–146.

Xing, Xiangdong. 2002. *Shenmu fangyan yanjiu*. Beijing: Zhonghua Book Company.

Xing, Xiangdong & Wang, Zhaofu. 2014. *Wubu fangyan diaochayanjiu*. Beijing: Zhonghua Book Company.

Xu, Hui. 2001. *Yiyang fangyan yufa yanjiu*. Changsha: Hunan Education Publishing House.

Xu, Lin & Zhao, Yansun (ed.). 1984. *Baiyu jianzhi*. Beijing: The Ethnic Publishing House.

Xu, Shixuan. 1998. *Bisuyu yanjiu*. Shanghai: Shanghai Far East Publishers.

Xu, Ying & Guan, Linqian. 2019. Study of interrogative sentences in Qianjiang dialect. *Sanxia Luntan* 2019(1). 56–62.

Xuan, Dewu & Jin, Xiangyuan & Zhao, Xi. 1985. *Chaoxianyu jianzhi*. Beijing: The Ethnic Publishing House.

Yao, Lijuan. 2007. Suiyang fangyan de yiwenju yu putonghua yiwenju de yitong. *Zuiyi Shifan Xueyuan Xuebao* 9(6). 41–43.

Yamakoshi, Yasuhiro. 2006. Shinekhen-Buryat text: Basic sentences in daily conversation. *Languages of the North Pacific Rim* 13. 139–180.

Yamakoshi, Yasuhiro. 2015. A Khorchin Mongolian text: Basic sentences in daily conversation. *Northern Language Studies* 5. 281–317.

Yan, Wenhan. 2018. *Xishuangbanna Taileyu cankaoyufa*. Shanghai: Shanghai Normal University. (Doctoral dissertation.)

Yang, Qiufeng. 2017. *Anhui Taihu fangyan yufa yanjiu*. Beijing: The Graduate School of Chinese Academy of Social Sciences. (Master's thesis.)

Yang, Tong. 2015. *The study of interrogative sentences in the dialect of Yueyang City in Hunan Provice*. Changsha: Hunan Normal University. (Master's thesis.)

Yang, Yan. 2016. *Haniyu Wonihua yanjiu*. Shanghai: Shanghai Normal University. (Doctoral dissertation.)

Yang, Yun. 2019. *Xishuangbanna Haniyu Mengsonghua yanjiu*. Beijing: Minzu University of China. (Master's thesis.)

Ye, Meili. 2000. *Saixiayu cankaoyufa*. Taipei: Yuan-Liou Publishing Company.

Yi, Yaxin. 2007. *Changde fangyan yufa yanjiu*. Beijing: Xueyuan Chubanshe.

Yin, Shage. 2012. *Yincun Mulaoyu cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Yin, Xiangyin. 2008. *Weishan fangyan yufa yanjiu*. Harbin: Heilongjiang People's Publishing House.

Yu, Cuirong. 1980. *Buyiyu jianzhi*. Beijing: The Ethnic Publishing House.

Yu, Jinzhi. 2010. *Aizhai Miaoyu cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Yu, Wei. 2018. *Interrogation research of Luoping dialect*. Kunming: Yunnan Normal University. (Master's thesis.)

Yuan, Zhongshu. 1994. *Liyu yufa gangyao*. Beijing: China Minzu University Press.

Zeitoun, Elizabeth. 2007. *A grammar of Mantauran (Rukai)*. Taipei: Institute of Linguistics, Academia Sinica.

Zeng, Siqi. 1991. *Taiwan Ameisiyu yufa*. Beijing: China Minzu University Press.

Zeng, Yiping. 2010. Kejia fangyan (Shichenghua) yiwen fanchou yanjiu. In Shao, Jingmin & Zhou, Juan & Peng, Xiaochuan & Shao, Yi & Gan, Yuen & Zeng, Yiping (eds.), *Hanyu fangyan yiwen fanchou bijiaoyanjiu*, 74–94. Guangzhou: Jinan University Press.

Zhan, Fangqiong & Sun, Chaofen. 2013. A copula analysis of *shì* in the Chinese cleft construction. *Language and Linguistics* 14(4). 755–789.

Zhang, Ansheng. 2000. *Tongxin fangyan yanjiu*. Yinchuan: Ningxia People's Publishing House.

Zhang, Dingjing. 1991. Hasakeyu yiwenju. *Xinjiang Daxue Xuebao (Zhexue Shehui Kexue Ban)* 1991(1). 98–106.

Zhang, Jichuan. 1986. *Cangluo Menbayu jianzhi*. Beijing: The Ethnic Publishing House.

Zhang, Jinqüan. 2015. *Wudi fangyanzhi*. Beijing: Beijing World Publishing Corporation.

Zhang, Junhao. 2019. *Grammar research on Shangmayang of Hunan dialect*. Nanning: Nanning Normal University. (Master's thesis.)

Zhang, Junru. 1980. *Shuiyu jianzhi*. Beijing: The Ethnic Publishing House.

Zhang, Lan. 2019. *Research on query category of Linchuan dialect*. Shanghai: East China Normal University. (Master's thesis.)

Zhang, Lei. 2010. *A reference grammar of Zhiqiang speech of Li language*. Tianjin: Nankai University. (Doctoral dissertation.)

Zhang, Paiyu. 2013. *The Kilen language of Manchuria: Grammar of amoribund Tungusic language*. Hong Kong: University of Hong Kong. (Doctoral dissertation.)

Zhang, Ping. 2013. *Xüpu Xianghua yiwenju yanjiu*. Changsha: Central South University. (Master's thesis.)

Zhang, Pingsheng & Xiao, Tengcun & Lü, Mingfen. 2010. *Jiayixian fangyanzhi*, vol. 1. Kaohsiung: National Sun Yat-Sen University Press.

Zhang, Qiulin. 2008. On the alternative questions in the Shanxian dialect. In Shao, Jingmin (ed.), *Ershiyi shiji Hanyu fangyan yufa xintansuo: Disanjie Hanyu Fangyan Yufa Guoji Yantaohui lunwenji*, 156–169. Guangzhou: Jinan University Press.

Zhang, Qiulin. 2009. On the auxiliary of mood "man(曼)" in alternative questions in Shanxian dialect. *Hanyu Xuebao* 2009(2). 54–60.

Zhang, Xiaolong. 2020. *The study of interrogative sentences of Goulou Cantonese in Lianshan County*. Kunming: Yunnan Normal University. (Master's thesis.)

Zhang, Yanfen & Lin, Yi. 2009. *Guangxi Pingle Minfangyan yanjiu*. Guilin: Guangxi Normal University Press.

Zhang, Yizhou & Zhang, Qingyuan & Deng, Shuying. 2001. *Chengdu fangyan yufa yanjiu*. Chengdu: Bashu Shushe.

Zhao, Kuixin. 2012. *Wuhan fangyan yufa yanjiu*. Wuhan: Wuhan University Publishing House.

Zhao, Min. 2009. *Mojiang Hanizu Kaduohua cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Zhao, Xüeling. 2007. Shandong Zhangqiu fangyan de yiwenju ji yiwen yuqici. *Jinan Daxue Xuebao (Shehui Kexue Ban)* 17(6). 60–65.

Zhao, Zhenyan. 2009. *Zhaozhuang Baiyu cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Zheng, Juan-man. 2009. Questions in Wenzhou dialect. *Zhejiang Shifandaxue Xuebao (Shehui Kexue Ban)* 34(2). 93–95.

Zheng, Yiqing. 1997. *Huihuihua yanjiu*. Shanghai: Shanghai Far East Publishers.

Zhou, Benliang. 2005. *Lingui Yininghua yanjiu*. Nanning: Guangxi Nationalities Publishing House.

Zhou, Changji & Ouyang, Yiyun. 1998. *Xiamen fangyan yanjiu*. Fuzhou: Fujian People's Publishing House.

Zhou, Juan. 2010. Xiang fangyan (Xinhua hua) yiwen fanchou yanjiu In Shao, Jingmin & Zhou, Juan & Peng, Xiaochuan & Shao, Yi & Gan, Yuen & Zeng, Yiping (eds.), *Hanyu fangyan yiwen fanchou bijiaoyanjiu*, 44–58. Guangzhou: Jinan University Press.

Zhou, Zhizhi & Yan, Qixiang. 1984. *Wayu jianzhi*. Beijing: The Ethnic Publishing House.

Zhu, Yanhua. 2011. *Zaiwayu cankaoyufa*. Beijing: Minzu University of China. (Doctoral dissertation.)

Zikmundová, Veronika. 2013. *Spoken Sibe: Morphology of the inflected parts of speech*. Prague: Karolinum Press.

Zimmermann, Thomas Ede. 2000. Free choice disjunction and epistemic possibility. *Natural Language Semantics* 8(4). 255–290.

Address for correspondence

Xinyi Li
Division of Humanities
The Hong Kong University of Science and Technology
Clear Water Bay
Kowloon
Hong Kong
xlifs@connect.ust.hk

Publication history

Date received: 9 November 2021
Date accepted: 14 March 2023
Published online: 19 July 2024