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Nobody there? On the non-existence of nobody in Mandarin Chinese and related issues

WALTRAUD PAUL

CRLAO, CNRS-EHESS-INALCO, France

waltraud.paul@ehess.fr

Abstract

The present article demonstrates how the so far unchallenged misanalysis within Chinese linguistics of a few, but central, data points has led to a distorted picture biasing, *inter alia*, the general typology of *wh*-in-situ languages as well as the crosslinguistic study of Quantifier Phrases. This is the case for *méi yǒu rén* ‘not exist person’, *hěnrǎo yǒu rén* ‘rarely exist person’, and *zhǐ yǒu DP* ‘only exist DP’, which are not nominal projections equivalent of ‘nobody’, ‘only DP’, and ‘few people’ as currently assumed, but existential constructions: ‘there isn’t anybody’, ‘there is only DP’, and ‘there are rarely people’. In addition, a subset of speakers has reanalyzed *hěnrǎo (yǒu) rén* with a covert *yǒu* ‘exist’ as a QP *hěnrǎo rén* ‘few people’. A corpus study highlights the limited distribution of *hěnrǎo rén* ‘few people’, which shows that it is not on a par with its antonym *hěn duō rén* ‘many people’.

Keywords: *wh*-in-situ languages, intervention effect, monotone decreasing vs. increasing quantifiers, existential construction, Mandarin Chinese

Résumé

Le présent article montre comment la mésanalyse, jusqu’ici incontestée au sein de la linguistique chinoise, de quelques points de données centraux, a conduit à une image déformée biaisant, entre autres, la typologie générale des langues WH-in-situ ainsi que l’étude interlinguistique des syntagmes quantificationnels (SQ). C’est le cas de *méi yǒu rén* ‘pas

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exister personne’, *hěnnshǎo yǒu rén* ‘rarement exister personne’ et *zhǐ yǒu* DP ‘seulement exister DP’, qui ne sont pas des projections nominales équivalentes à ‘personne’, ‘seulement DP’, et ‘peu de gens’ comme on le suppose actuellement, mais des constructions existentielles: ‘il n’y a personne’, ‘il n’y a que DP’ et ‘il y a rarement des gens’. En outre, un sous-ensemble de locuteurs a réanalysé *hěnnshǎo (yǒu) rén*, avec un *yǒu* ‘exister’ nul, en tant que QP *hěnnshǎo rén* ‘peu de gens’. Une étude de corpus met en évidence la distribution limitée de *hěnnshǎo rén* ‘peu de gens’, ce qui montre qu’il n’est pas l’équivalent de son antonyme *hěnn duō rén* ‘beaucoup de gens’.

Mots-clés: langues *wh*-in-situ, effet d’intervention, quantificateurs monotoniques décroissants vs croissants, construction existentielle, chinois mandarin

1. INTRODUCTION

Both Soh (2001, 2005) and Ko (2005: 883) use the contrast in (1a–b) below as the starting point for their respective analyses of *wh*-in-situ languages.¹

- (1) a. *{Méiyǒurén/zhǐyǒu Lìsì/hěnnshǎo rén} wèishénme cízhí?
 nobody/ only Lisi/few people why resign
 b. Wèishénme {méiyǒurén/zhǐyǒu Lìsì/hěnnshǎo rén} cízhí?
 why nobody/ only Lisi/few people resign
 ‘Why did nobody/only Lisi/few people resign?’
 (= Soh 2005: 148, (17a–b), combined with Ko 2005: 883, (36a–b); their parsing, glosses, and translation)

Soh (2001, 2005) accounts for it in terms of an *intervention effect* (see Beck 1996), which prohibits *wh*-movement in LF over an intervening quantifier (including ‘only’ and negation). Further building on this and other observations, she argues that an adverbial *wh*-phrase in Mandarin Chinese such as *wèishénme* ‘why’ undergoes covert *feature* movement, while a nominal *wh*-phrase such as *shéi* ‘who’ or *shénme* ‘what’ undergoes covert *phrasal* movement.

Ko (2005: 883) takes another stand and postulates that ‘why’ in *wh*-in-situ languages (Chinese, Japanese, Korean) is merged in narrow syntax in SpecCP of the clause it modifies. Accordingly, if an XP cannot be base-generated *above* SpecCP or cannot undergo A-bar movement, then it cannot precede ‘why’, either. This is said to be the case for *méiyǒurén* ‘nobody’, *zhǐyǒu* DP ‘only DP’, and *hěnnshǎo rén* ‘few people’ in Chinese, thus accounting for (1a–b) above and (2) below, which according to Ko (2005) precisely illustrates an instance where A-bar movement (here to the matrix topic position) is barred:

- (2) *{Méiyǒurén_i/zhǐyǒu Lìsì_i/hěnnshǎo-rén_i} Zhāngsan shuō
 nobody/ only Lisi/few-people Zhangsan say
 [(tā_i/ tāmen_i) hěn cōngmíng].
 she/they very smart

¹The relevant data from the unpublished manuscript (Soh 2001) are taken up in Soh (2005), with the exception of *zhǐyǒu* NP ‘only NP’.

‘Zhangsan said that {nobody/only Lisi/few people} {is/are} very smart.’

(Ko 2005: 886, (42); her parsing, glosses, and translation; tones added)

The aim of this article is to demonstrate that the basic assumption underlying the analyses in Soh (2001, 2005) and Ko (2005), viz. that *méiyǒurén* ‘nobody’, *zhǐyǒu* DP ‘only DP’, and *hěnnshǎo-rén* ‘few people’ are nominal projections (i.e., DPs or QPs), is simply wrong (except for a subset of *hěnnshǎo-rén*).² Instead, they are full-fledged propositions involving the existential verb *yǒu* ‘have, exist’ preceded by negation or adverbs (presented here simply as adjoined), whose unique internal argument is merged vP-internally. Note that Chinese lacks null expletive subjects (see Li 1990).

- (3) a. [_{TP} (Jīntiān) [_{vP} méi [_{vP} yǒu rén]]].³
 today NEG exist person
 ‘There isn’t anybody (today).’ ≈ ‘There is nobody (today).’
- b. [_{TP} (Jīntiān) [_{vP} zhǐ [_{vP} yǒu Lìsì]]].
 today only exist Lisi
 ‘There is only Lisi (today).’
- c. [_{TP} (Zhèlǐ) [_{vP} hěnnshǎo [_{vP} yǒu rén]]].
 here rarely exist person
 ‘There are rarely people (here).’

In the absence of any extralinguistic or linguistic context (such as a preceding question), a temporal or locative adjunct XP such as *jīntiān* ‘today’, *zhèlǐ* ‘here’ is needed to anchor the event. The fact that this is unnecessary in non-root contexts confirms the principled well-formedness of the existential construction in the form ‘*yǒu* DP’ (see Paul et al. 2020 for detailed discussion; also see the *wh*-question in (5) below):

- (4) a. Yīnwèi méi yǒu rén/ yīnwèi bào míng de rén zhǐ yǒu
 because NEG exist person/because report name SUB person only exist
 Lìsì, lǎoshī hěn bùmǎnyì.
 Lisi teacher very dissatisfied
 ‘Because there wasn’t anybody/because there was only Lisi among the registered,
 the teacher was very dissatisfied.’
- b. Yīnwèi hěnnshǎo yǒu rén, gōngyuán lǐ zhǎng-mǎn-le zácǎo.
 because rarely exist person park in grow-full-PERF weeds
 ‘Because there are rarely people, the park has become overgrown with weeds.’

Accordingly, in the following, an implicit anchoring context is assumed for all instances of *méi yǒu rén* ‘there isn’t anybody’, *zhǐ yǒu* DP ‘there is only DP’, and

²This misanalysis has many followers (see, among others, Tsai 2008; Yang 2012; Jin 2017, 2020). Soh (2005) and Ko (2005) are chosen here because of the explicit character of their claims and the influence they have had on subsequent studies on *wh*-in-situ languages, as evidenced by their being cited frequently. For an in-depth discussion of the very complex case of *hěnnshǎo yǒu rén* ‘There are rarely people’, in particular the sometimes covert nature of *yǒu* ‘exist’, see section 4 below.

³The following abbreviations are used in glossing examples: CL: classifier; EXP: experiential aspect; NEG: negation; PERF: perfective aspect; PL: plural; SFP: sentence-final particle; SG: singular; SUB: subordinator.

hěnsǎo yǒu rén ‘there are rarely people’ in order to facilitate applying the various tests distinguishing these existential constructions from DPs.

The correct analysis for (1b) to be argued for in the remainder of this article is given in (5): the negation *méi* and the adverbs *zhǐ* ‘only’ and *hěnsǎo* ‘rarely’ precede the existential verb *yǒu* ‘exist’, and *cízhí* ‘resign’ is a secondary predicate for *rén* ‘person’:

- (5) [_{matrix TP} Wèishénme {*méi* you *rén*_i/ *zhǐ* yǒu *Lisi*_i/*hěnsǎo* (yǒu) *rén*_i}
 why NEG exist person/only exist *Lisi*/rarely exist person
 [_{sec.pred PRO_i} *cízhí*]]?
 resign
 ‘Why {wasn’t there anybody/was there only *Lisi*/were there rarely people} who resigned?’

(1a) will be shown to be excluded due to a general ban on *wh*-questions in a secondary predicate when the matrix predicate is negated or modified by a quantificational adverb.

The main argument against DP status of the three sequences comes from their unacceptability in postverbal object position (with verbs exclusively selecting nominal complements). This is *the* standard test for constituency, in this case DP-hood, based on the consistent head-initial character of the extended verbal projection in the SVO language Chinese (see Huang 1982 and his subsequent work):

- (6) **Tā pèngdào-le* [_{TP} *méi* yǒu *rén*].
 3SG meet-PERF NEG exist person
 (Intended: ‘She didn’t meet anybody/She met nobody.’)⁴
- (7) **Tā pèngdào-le* [_{TP} *zhǐ* yǒu *Lisi*].
 3SG meet-PERF only exist *Lisi*
 (Intended: ‘She only met *Lisi*.’)
- (8) **Tā pèngdào-le* [_{TP} *hěnsǎo* (yǒu) *rén*].
 3SG meet-PERF rarely exist person
 (Intended: ‘She met few people.’)

Given that *méi yǒu rén* ‘there isn’t anybody’, *zhǐ yǒu DP* ‘there is only DP’, and *hěnsǎo (yǒu) rén* ‘there are rarely people’ are not nominal projections (i.e., DPs or QPs), the unacceptability of (2) cannot be due to illicit DP movement, either. Any proposal claiming nominal status for *méi yǒu rén*, *zhǐ yǒu DP*, or *hěnsǎo (yǒu) rén*,

⁴The intended meaning is to be rendered as in (i), with either *rèn hé* NP ‘any NP’ in object position or *shéi* ‘who’, given that *wh* pronouns can function as indefinites when under the scope of negation (see Huang 1982, Cheng 1991):

- (i) *Tā méi pèngdào* [_{DP} *rèn hé* *rén*]/ *shéi*.
 3SG NEG like any person/who
 ‘She didn’t meet anybody.’

More precisely, for the non-interrogative interpretation of *shéi* ‘who’ in (i), stress on the negation *méi* and a slightly descending intonation on *shéi* ‘who’ are required (see Pan 2011a for detailed discussion). This is not necessary in the case of the negative polarity item *rèn hé* ‘any’.

equivalent to *nobody*, *only DP*, and *few people*, must first come to terms with these basic distributional facts.

Visibly, the so far unchallenged misanalysis within Chinese linguistics of a few, but central, data points has led to a distorted picture biasing *inter alia* the general typology of *wh*-in-situ languages as well as the crosslinguistic study of QPs. Given the increasingly important role of Chinese in crosslinguistic research and syntactic theory, precise analyses that do not content themselves with approximate translational equivalents, but provide the linguist with a detailed and theoretically-informed picture based on a representative set of data, thereby allowing them to properly evaluate proposals for Chinese made in the literature and to develop their own claims, are indispensable.

The article is organized as follows. Section 2 compares *méi yǒu rén* ‘there isn’t anybody’ with its affirmative counterpart *yǒu rén* ‘there is someone’ and shows in passing that there is no DP counterpart of ‘someone’ in Chinese, either. This is due to the ban on indefinite, non-specific subjects in Chinese; no such constraint holds for the internal argument of the existential verb *yǒu* ‘exist’. Section 3 turns to *zhǐ yǒu DP* ‘there is only DP’. It provides extensive evidence in favour of the often-neglected distinction between the adverb *zhǐ* ‘only’ and the existential construction *zhǐ yǒu* ‘there is only’. Section 4 discusses *hěn shǎo rén* ‘few people’, which, as the most complex case, requires a more detailed investigation. In fact, many speakers reject or only very marginally accept *hěn shǎo rén* ‘few people’, and instead use the existential construction *hěn shǎo yǒu rén* ‘there are rarely people’ plus a secondary predicate (see (5) above). The observed variation in judgements can be accounted for by acknowledging three groups of speakers. *Hěn shǎo rén* ‘few people’ is shown to result from the reanalysis of the existential construction with a covert *yǒu* ‘exist’, *hěn shǎo (yǒu) rén* ‘there are rarely people’. A corpus study confirms the many restrictions holding for the QP *hěn shǎo rén* ‘few people’. Importantly, from a syntactic point of view, *hěn shǎo rén* ‘few people’ is *not* the counterpart of the QP *hěn duō rén*, despite their antonymic relationship. Section 5 then returns to the starting point and demonstrates how the data provided by Soh (2001, 2005) and Ko (2005) are to be accounted for; crucially, neither movement nor intervention effects are involved here.⁵ Section 6 concludes the article.

2. MÉI YǒU RÉN ‘THERE ISN’T ANYBODY’ ≈ ‘THERE IS NOBODY’

The incorrect analysis of *méi yǒu rén* as a DP ‘nobody’ is clearly an effect of the translation into English of the Chinese negated existential construction with a

⁵Since it is not central to my analysis, I relegate to the appendix the discussion and refutation of Ko’s (2005) claim that *wèishénme* ‘why’ is always merged in SpecCP in narrow syntax (also see Lin 1992), a claim that simply does not tie in with the overall syntax of Chinese (as likewise pointed out by Soh 2005: 149). Note already the well-known fact that *wèishénme* ‘why’ in Chinese may either precede or follow the subject, and may hence occur in a TP-internal position.

secondary predicate on *rén* ‘person’, the internal argument of *yǒu* ‘exist’ (see (9)). (For secondary predicates in existential constructions, see Huang 1984, 1987.)

- (9) Méi yǒu rén_i [PRO_i gàosù wǒ zhè jiàn shì].⁶
 NEG exist person tell 1SG this CL matter
 ‘There isn’t anybody who has informed me about that matter.’
 ‘Nobody has informed me about that matter.’

There are myriads of examples involving NPs different from *rén* ‘person’ available in every good grammar manual such as Lü (2000: 382–383), further highlighting the clausal status of *méi yǒu rén* ‘there isn’t anybody’:

- (10) a. Jintiān méi yǒu fēng/dàngào/kè.
 today NEG exist wind/cake/class
 ‘Today there is no wind/no cake/no class.’
 b. Zěnme méi yǒu diàn le?
 how NEG exist electricity SFP
 ‘How come there is no electricity?’

Another argument against the DP-hood of *méi yǒu rén* ‘there isn’t anybody’ is its unacceptability as the complement of a preposition (see Huang 2003: 4; (11c)):

- (11) Tā [PP gēn [DP Lǎo Zhāng]/*[PP gēn [TP méi yǒu rén]] shuo huà.
 3SG with Lao Zhang/ with NEG exist person speak word
 ‘He talks to Lao Zhang/to nobody.’

Huang (2003: 4, note 7) likewise states the unacceptability of *méi yǒu rén* ‘there isn’t anybody’ in object position (see (6) above) and therefore evidently evokes the analysis argued for here with *méi yǒu rén* as a negated existential construction ‘there isn’t anybody’. However, Huang (2003: 19) discards it in the end (emphasis mine):

Concerning Mandarin, one might reasonably suggest that the language (like Japanese) does not have a negative NP. All the putative negative NPs are simply a sequence of *méi yǒu* ‘not have’ followed by a polarity NP that does not reanalyze into a negative NP constituent. My assumption is that it should be possible to optionally regard such a sequence as having reanalyzed into an NP, based on two considerations. First, native speakers tend to equate nobody with *méi yǒu rén* (say, in word-for-word translations), even without realizing that *méi yǒu rén* does not occur postverbally. Second, it was pointed out to me [...] that postverbal *méi yǒu rén* is used by some young speakers, and also in pop song lyrics.⁷

Instead, *méi yǒu rén* ‘there isn’t anybody’ is assigned NP status on a par with English *nobody*. Its unacceptability in object position is then accounted for by the absence of V-to-Infl(-to C) movement in Chinese, which leaves the verb *between* negation and the NP in object position. As a result, the latter two are not adjacent and their conflation into one NP is not possible, either, as proposed by Christensen (1986) for negative NPs in Norwegian V2 sentences, based on Klima’s (1964) analysis of English

⁶According to Huang (1989: 194), Chinese shows no difference between *pro* and PRO. In the following, I choose PRO as label for the covert subject in secondary predicates.

⁷For related discussion, see Tsai (2003). Seventeen years later, none of the Chinese students consulted accepted *méi yǒu rén* ‘there isn’t anybody’ as an object DP in postverbal position.

nobody as the conflation of *not* and *anybody*. The same account is applied to the unacceptability of *méi yǒu rén* ‘there isn’t anybody’ as the complement of a preposition, given that negation precedes a preverbal PP adjoined to *vP* and will therefore never be adjacent to the complement NP within the PP.⁸

This analysis is not on the right track, because *inter alia* it obscures the parallel with the affirmative existential construction, for which Huang (2003) provides an example, given below:

- (12) (Yǒu) yī-ge rén mǎi-le měi-yi-běn shu.
 have someone buy-PERF every-CL book
 ‘Someone bought every book.’

Unambiguous: $\exists > \forall$

(Parsing, glosses, and translation by Huang 2003: 18, (63b); tones added)

Huang (2003: 18) cites this example to show the contrast with the corresponding English sentence *Someone bought every book*, which is ambiguous and allows for two readings: $\exists > \forall$ and $\forall > \exists$.

In fact, *yǒu* ‘exist’ in (12) is *not* optional, unless *yī ge rén* ‘one CL person’ is to be understood as ‘a certain person’ instead of ‘some person’. Because, as is well-known, Chinese does not allow for indefinite non-specific DPs in subject position;⁹ the latter are, however, acceptable as the internal argument of the existential verb *yǒu*:

- (13) a. Yǒu [yī ge rén] dǎ diànhuà gěi nǐ.
 exist 1 CL person strike phone to 2SG
 ‘There is a person that phoned you.’
 ‘Someone phoned you.’
 b. * [Yī ge rén] dǎ diànhuà gěi nǐ.
 1 CL person strike phone to 2SG

The specific reading of a Number Phrase ‘Num CL NP’ is favoured by an episodic predicate (see Fan 1985, Li L. 1990, Tang 2005, among many others), where accordingly ‘yī CL NP’ is acceptable in the subject position:

- (14) a. [Yī ge chuān máoyī de xiǎoháizi] chūxiàn zài gūniang shēn hòu [...].
 1 CL wear sweater SUB child emerge at girl body behind
 ‘A child wearing a sweater appeared from behind the girl [...].’
 b. *(Yǒu) [yī ge xiǎoháizi] hěn cōngmíng.
 exist 1 CL child very intelligent
 ‘There is a child who is very smart.’ (Tang 2005: 12, (15); 13, (21’))

- (15) Yī wèi yīshēng xiàng wǒ jièshào [...].
 1 CL doctor towards 1SG introduce
 ‘A (certain) doctor informed me that [...].’

(Fan 1985: 45)

⁸(i) Tā bù/méi [_{vP} [PP gēn (rèn)hé] rén] shuō huà].
 3SG NEG/NEG with any person speak word
 ‘He doesn’t talk/hasn’t talked to people/to anybody.’

⁹This constraint does not hold in non-root contexts (e.g., conditional clauses : see Lee 1986: 90).

- (16) Yī zhǐ xiǎo hóuzi zhèng zài shù shàng dǎ qiūqiān wánr.
 I CL small monkey just at tree on strike swing play
 ‘A small monkey is just swinging in the tree for fun.’ (L. Li 1990: 249)

Tang (2005) contrasts (14a) featuring the episodic predicate ‘appeared from behind the girl’ with the individual-level predicate ‘be intelligent’ in (14b), where *yǒu* ‘exist’ obligatorily precedes *yī ge xiǎoháizi* ‘a child’. Example (16) is a sentence that reports an observation, and hence has a specific subject and an episodic predicate (see, a.o., Y.-H. A. Li 1996, 1998; Huang et al. 2009: Ch. 8, for discussion of this constraint on subjects.)

The ban on indefinite non-specific DPs in subject position also explains why Chinese has no DP equivalent for *someone*, either; instead, this is again to be rendered by the existential construction (17), with an eventual secondary predicate on (*yī ge*) *rén*, as in (13a) above:

- (17) Yǒu (yī ge) rén.
 exist I CL person
 ‘There is a person/someone.’

On a par with *méi yǒu rén* ‘there isn’t anybody’, *yǒu (yī ge) rén* ‘there is a person’ is unacceptable in object position or as complement to a preposition, a fact well-known by every L2 learner of Chinese who in the beginning produces the unacceptable sentences below based on the wrong assumption that *yǒu (yī ge) rén* is a DP:

- (18) a. *Akiū piàn-le [yǒu (yī ge) rén].
 Akiu cheat-PERF exist I CL person
 (Intended: ‘Akiu cheated someone.’)
 b. *Tā duì [yǒu (yī ge) rén] bùmǎnyì.
 3SG towards exist I CL person dissatisfied
 (Intended: ‘Akiu is dissatisfied with someone.’)
 (Tsai 2003: 161, (2a), (3a), slightly changed)

The clausal nature of both *yǒu rén* ‘there is somebody’ and *méi yǒu rén* ‘there isn’t anybody’ is confirmed by the question-answer pair below, where the *yes/no* question in (19a) is formed in the syntactic pattern ‘V-not-V’ (see Huang 1982), juxtaposing the affirmative and the negative counterparts of the verb:

- (19) a. Yǒu méi yǒu rén?
 exist NEG exist person
 ‘Is there anybody?’
 b. Yǒu (rén).
 exist person
 ‘There is somebody.’
 c. Méi yǒu (rén).
 NEG exist person
 ‘There isn’t anybody.’

Example (19b) is the positive answer and (19c) the negative answer; in both, the existential verb *yǒu* on its own without *rén* ‘person’ is sufficient, thus further

demonstrating the verb status of *yǒu* and the clausal nature of (*méi*) *yǒu rén*.¹⁰ The same holds for (20) with a secondary predicate:

- (20) a. Yǒu méi yǒu rén [sec.pred. PRO dǎ diànhuà]?
 exist NEG exist person strike phone
 ‘Was there somebody who phoned?’
 b. (i) Yǒu. (ii) Méi yǒu.
 exist exist NEG
 ‘(Yes) there was.’ ‘(No) there wasn’t.’

Finally, once again, *rén* ‘person’ is only one of many NPs that can be the internal argument of the verb *yǒu* ‘exist’ in a *yes/no* question:

- (21) a. Yǒu méi yǒu {fēng/ diàn/ shuǐ/ wifi liánjiē}?
 exist NEG exist wind/electricity/water/wifi connection
 ‘Is there wind/electricity/water/a wifi connection?’
 b. Yǒu./Méi yǒu.
 exist/NEG exist
 ‘(Yes) there is.’/‘(No) there is not.’

All these well-known data are incompatible with an analysis of *méi yǒu rén* and *yǒu* (*yī ge*) *rén* as DPs (*nobody* and *someone*, respectively), but obtain automatically under the clausal analysis.

Before concluding this section, let us briefly address some general issues. Given that *yǒu* ‘exist’ can be negated and modified by adverbs like all other verbs, Milsark’s (1974) approach is adopted, where the existential verb is not an operator itself, but introduces an operator (see Y.-H. A. Li 1996 for a mixed approach). Reformulating Milsark (1974) by using the now generalized distinction of *pivot* vs. *coda* (see McNally 2011: 8136), the *pivot* nominal following the existential verb is a property restricting the existential operator, whereas the *coda* (i.e., the secondary predicate), indicates the scope of the existential operator.¹¹

- (22) There are [_{pivot} students] [_{coda} waiting in the classroom].

The important question already raised by Milsark (1974: 19) as to whether *pivot* and *coda* form a constituent (an NP immediately dominating an S in Milsark 1974) or whether the *coda* is a separate constituent attached to VP or to S has so far not been satisfactorily answered for Chinese.

¹⁰(19a–c) is thus on par with (ia–b), where preferably the object DP *Běijīng* is not repeated in the answer:

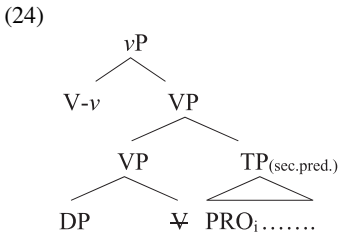
- (i) a. Tā qù bù qù Běijīng? b. (Tā) qù/bù qù.
 3SG go NEG go Beijing 3SG go/NEG go
 ‘Will she go to Beijing?’ ‘Yes, she will.’/‘No, she won’t.’

¹¹Milsark (1974: 13, 20) himself defined the *coda* as *all* material to the right of the verb.

Huang (1987: 236, 1988: 57) tentatively suggests an analysis where the DP following *yǒu* ‘exist’ and the secondary predicate constitute the complement clause of *yǒu* ‘exist’:¹²

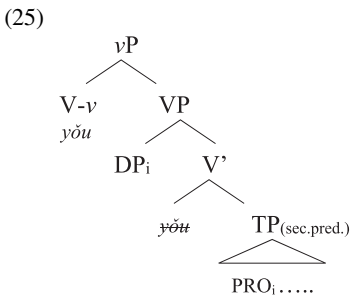
- (23) Yǒu [_{IP} [yī ge rén] [zài jiàoshì lǐ]].
 exist 1 CL person be.at classroom in
 ‘There is someone in the classroom.’ (Huang 1988: 57)

The second possible analysis for Chinese takes up McNally’s (1992) assumptions that the *pivot* is the only argument of the existential predicate and that the *coda* is a VP-internal adjunct modifier that stands in a control relation to the pivot.



In (24), the VP consisting of the verb *yǒu* ‘exist’ and its internal argument is merged with the secondary predicate (also see Irimia 2005), which has the size of TP, given the acceptability of auxiliaries, aspect suffixes, etc. here. Its always covert subject, PRO, is coindexed with the internal argument of *yǒu* ‘exist’. (For the relevance of “weak” c-command in Chinese, see Huang et al. 2009: 335.)

Finally, based on Huang’s (1984) early intuition that secondary predicates should be treated on a par with purposive clauses, a third structure is possible:



¹²I abstract away here from the stipulation made by Huang (1988: 57) that *yǒu* ‘exist’ is an auxiliary located in Infl. Auxiliaries and lexical verbs alike never leave the vP; accordingly, the head of the projection hosting the subject (Infl or T) always remains covert in Chinese (see Ernst 1994).

This structure is based on Wei and Li's (2018) analysis of postverbal purposive clauses as control complements:

- (26) a. [_{VP} V [_{VP} DP [_V-[_{purposive clause}]]]] Wei and Li 2018: 321, (54)
 b. Wōmen jìn yīqiè lìliàng [wánchéng zhè ge jìhuà]
 1_{PL} exhaust all strength accomplish this CL plan
 'We will use all our forces to accomplish this project.'

Wei and Li (2018: 309–322) provide ample evidence that structurally, the purposive clause is a complement to the verb and projects a VP, on par with the infinitival complements of control verbs such as *kāishǐ* 'begin' and *jìxù* 'continue' (see Huang 2017).

By contrast, as indicated in (25) above, the size of the secondary predicate in existential constructions is that of a TP (with an always covert subject), as evidenced by the presence of aspect suffixes, auxiliaries, and negation, as well as adverbs and adjunct XPs preceding the negation. Since negation indicates the left edge of the extended verbal projection in Chinese, the secondary predicate must be larger than the extended vP:

- (27) Yǒu jǐ ge rén_i [_{TP} PRO_i míngtiān bù néng cānjiā huìyì].
 exist several CL person tomorrow NEG can attend meeting
 'There are several persons who cannot attend the meeting tomorrow.'

As for the choice among the three structures, for the purpose of this article, I adopt the third one in (25), with a clear bipartitioning into matrix clause and secondary predicate. As we will see below, this allows us to account for the scopal behaviour of focus adverbs preceding *yǒu* 'exist' in the existential construction. The lack of this bipartitioning is the major drawback of Huang's (1988) structure (23) and to a certain extent also that of (24).

Further research is needed to definitively decide between the configurations (25) and (24), because the few studies on secondary predicates subsequent to Huang (1987) (Tsai 1994, Lin and Tsai 2015, a.o.) never address the important issue of the hierarchical position of secondary predicates in the clausal spine with respect to the object DP. The only consensus existing is that the secondary predicate must be located in VP or vP. Merging with a higher projection in TP is excluded by the overall syntax of Chinese, where, due to the systematic head-initiality of the extended verbal projection (including TP), postverbal material must be merged in the vP/VP. "That the XP [i.e., the secondary predicate, WP] when it appears, is under VP, but not immediately under S is assumed in all discussions" (Huang 1987: 232).

3. *ZHǐ YǒU* DP 'THERE IS ONLY DP'

Recall from (3b), repeated as (28a) below, that '*zhǐ yǒu* DP' is to be analyzed, not as a DP, but as the existential construction 'there is only DP', as evidenced by its unacceptability in object position (28b):

- (28) a. [_{TP} [_{vP} Zhǐ [_{vP} yǒu Lìsì]]].
 only exist Lisi
 'There was only Lisi.'

- b. *Tā pèngdào-le [TP zhǐ yǒu Lǐsì].
 3SG meet-PERF only exist Lisi
- c. Tā [vP zhǐ [vP pèngdào-le Lǐsì]].
 3SG only meet-PERF Lisi
 ‘She only met Lisi.’

Accordingly, *zhǐ yǒu* is *not* a single word *zhǐyǒu* ‘only’, but the adverb *zhǐ* ‘only’ preceding the existential verb *yǒu* (pace Tsai 2004, Erlewine 2015, a.o.),¹³ as evidenced by the compatibility of *zhǐ* ‘only’ with other verbs ((28c), (29a–b)) and the compatibility of *yǒu* ‘exist’ with the nearly synonymous adverb *jǐnjǐn* ‘only’ (29c).

- (29) a. Tā zhǐ [vP huì shuō hànǔ].
 3SG only can speak Chinese
 ‘She can only speak Chinese.’
- b. Tā zhǐ [vP qù-guo Běijīng].
 3SG only go-EXP Beijing
 ‘She has only been to Beijing.’
- c. Zhèi cì de kǎoshìtí hěn nán.
 this time SUB exam.question very difficult.
 {Zhǐ/jǐnjǐn} yǒu yī gè xuésheng quán zuò-wán-le.
 only/only exist I CL student completely make-finish-PERF
 ‘The exam questions this time were very difficult. There was only one student who finished them all.’

Being an adverb, *zhǐ* ‘only’ must merge with a verbal projection and precede its highest head (see Paul 2017a and references therein), which explains the unacceptability of both *zhǐ* DP and *zhǐ* PP:

- (30) a. *Tā xǐhuān [zhǐ Lǐsì].
 3SG like only Lisi
 (Intended: ‘She likes only Lisi.’)
- b. Tā zhǐ [vP xǐhuān Lǐsì].
 3SG only like Lisi
 ‘She only likes Lisi.’

The only way to render the meaning intended in (30a) is with the adverb *zhǐ* ‘only’ preceding and modifying the vP, as in (30b) (also see (28c) above).

The well-formedness of the sequence ‘*zhǐ* PP VP’ does not invalidate the observations above, because like any other adverb (e.g., *chángcháng* ‘often’), *zhǐ* ‘only’ combines with the vP containing the adjunct PP (31a). When in the topic position above TP, ‘adverb + PP’ is clearly unacceptable (31b):

¹³By contrast, the conjunction *zhǐyǒu* ‘only if’ is to be analyzed as one word; note the obligatory presence of the adverb *cái* ‘only then’ in the matrix clause:

- (i) Nǐ zhǐyǒu cǎiqǔ zhè ge bànfǎ cái néng xué-hǎo.
 2SG only.if apply this CL method only.then can learn-good
 ‘You can only learn well if you use this method.’ (Lü 2000: 681)

- (31) a. Tā {zhǐ/ chángcháng} [_{VP} [_{PP} gēn Lǐsì] [_{VP} shuō huà]].
 3SG only/ often with Lisi speak word
 ‘He only/often talks to Lisi.’
- b. *_{[TOPP} {Zhǐ/ chángcháng} [_{PP} gēn Lǐsì] [_{PP} gēn zhǐ Lǐsì]
 only/often with Lisi with only Lisi
 [_{TP} ta [_{VP} shuō huà]].
 3SG speak word
 (Intended: ‘Only with Lisi, he talks.’/‘Often with Lisi, he talks.’)
- c. *_{[TOPP} Zhǐ yǒu [_{PP} gēn Lǐsì] [_{PP} gēn zhǐ yǒu Lǐsì]
 only exist with Lisi/ with only exist Lisi
 [_{TP} ta [_{VP} shuō huà]].
 3SG speak word

As illustrated in (31c), the same unacceptability is observed for *zhǐ yǒu* ‘only exist’. Accordingly, neither the adverb *zhǐ* ‘only’ nor its combination with the verb *yǒu* ‘exist’, *zhǐ yǒu*, can be analyzed as “constituent *only*” in the sense of Beaver and Clark (2008: 235), as suggested by an anonymous reviewer.

This is confirmed by Lü (2000: 678–679), who postulates a covert verb for the rare acceptable cases of ‘*zhǐ* DP’:

- (32) a. Wūzi lǐ zhǐ [yǒu] [_{DP} Lǎo Wáng yī ge rén].
 room in only exist Lao Wang 1 CL person
 ‘In the room there was only the one person Lao Wang.’
- b. Zhǐ [shì] yùmǐ jiù shōu-le èrshí wàn jīn.
 only be corn then obtain-PERF 20 10.000 pound
 ‘For corn alone we obtained [i.e., harvested] 100 tons.’

(Examples from Lü 2000: 678–679, with the appropriate verb added)

Crucially, *zhǐ* DP ‘only DP’ is confined to a position where an existential construction with *zhǐ* ‘only’ preceding an unaccusative verb (*yǒu* ‘exist’ or *shì* ‘be’) is acceptable, that is, either the sentence-initial position, as in (32b), or following a locative postpositional phrase, as in (32a).

Similar to English and other languages, definite DPs and Number Phrases (as in (28a) and (29c) above) are perfectly acceptable when *zhǐ* ‘only’ modifies the existential verb, whereas bare nouns are infelicitous, because it leads to an uninformative statement (see Beaver and Clark 2003: 336):¹⁴

- (33) Wūzi lǐ zhǐ yǒu sān ge rén/#rén
 room in only exist 3 CL person/person
 ‘In the room there are only three persons.’
 #‘In the room, there is only some person/there are only people.’

Given the (crosslinguistic) pervasiveness of existential constructions with ‘only’ and a definite DP as internal argument of an existential verb, a way must be found to rule them in, alongside other well-known examples (35a–c) that disobey the otherwise observed *Definiteness Effect* (DE), which excludes definite DPs from existential constructions (34):

¹⁴Thanks to an anonymous reviewer for bringing examples of this type to my attention.

- (34) Yǒu [yi ge xuésheng]/*[nà ge xuésheng].
 exist I CL student/ that CL student
 ‘There was a student/*that student.’
- (35) a. Is there anything worth seeing around here? Well, there’s the Necco factory.
 (Milsark 1974: 208, (97))
- b. Are there any sane people in the world? There are only thee and me (and sometimes I wonder about thee).
 (Abbott 1992: 1–2;(2b), (3a))
- c. Who showed up? Well, there was Alex.
 (McNally 2011: 1834))

Exceptions to the DE have been observed since Milsark (1974) (see (35a–c)) and different approaches (syntactic, semantic, pragmatic) have been pursued ever since (see, a.o., McNally 1998, for the necessity of distinguishing between definite NPs and proper names on the one hand, and quantificational NPs on the other; see Fischer et al. 2016 for an overview).

In Chinese as well, the constraints ruling the DE are still very poorly understood. Not much progress has been made since Huang (1987), who considers his own in-depth investigation of the DE in Chinese as “inconclusive” on p. 250, given that too many different factors are involved. Two cases should suffice to illustrate his point (also see Y.-H. A. Li 1996).

Definite DPs are acceptable when they are members of a list (36b). Definite DPs are likewise allowed as the internal argument of unaccusative verbs such as *lái* ‘come’ and *zǒu* ‘leave’ in non-root contexts, although native speakers’ judgements differ here (36c):

- (36) a. Zuótiān de wǎnhuì yǒu shéi?
 yesterday SUB party exist who
 ‘Who was there at yesterday’s party?’
- b. Yǒu Lǐ lǎoshī, Zhāng lǎoshī hé tāmen de zhàngfū.
 exist Li prof. Zhang prof. and 3PL SUB husband
 ‘There were Prof. Li, Prof. Zhang, and their husbands.’
 (Paul et al. 2020: 238, (14–15))
- c. %Suīrán lái-le Lìsì [...]
 although come-PERF Lisi
 ‘Although Lisi came, ...’
 (Huang 1987: 242, (60))

Against this backdrop, a violation of the DE does not constitute a counterargument against the clausal analysis proposed here, the more so as the ‘only exist’ sentences form a clearly definable class of “exceptions”, precisely excluding indefinite NPs, which are otherwise acceptable as internal arguments *par excellence* in the canonical existential construction.

Going back to the fundamental difference between the adverb *zhǐ* ‘only’ and the existential construction *zhǐ yǒu* DP ‘there is only DP’, the following observation by Erlewine (2015: 24) provides further evidence in its favour:¹⁵

¹⁵This is *not* what Erlewine (2015) proposes; he instead considers *zhǐ* ‘only’ and *zhǐ yǒu* ‘there only is’ as allomorphs. Note that the section on *zhǐ(yǒu)* was not included in the published version (see Erlewine 2017).

- (37) Zhǐ yǒu Lìsì shuō [Zhāngsān hē chá].
 only exist Lisi say Zhangsan drink tea
 ‘There is only Lisi who said that Zhangsan drinks tea.’

(Glosses and translation mine)

In (37), *zhǐ* ‘only’ can only focus *Lisi*, not any of the DPs in the complement clause, irrespective of whether they bear phonological stress or not.

The same holds for *zhǐ yǒu* DP ‘there is only DP’ with a secondary predicate:¹⁶

- (38) a. Zhǐ yǒu Lìsì [_{sec.pred} PRO lái -le/ piàn-le Zhāngsān].
 only exist Lisi come-PERF/cheat-PERF Zhangsan
 (#dàn Mǎlì yě lái-le/ piàn-le Zhāngsān).
 but Mary also come-PERF/cheat-PERF Zhangsan
 ‘There is only Lisi who came/who cheated Zhangsan. (#But Mary also came/also cheated Zhangsan.)’
 (Not: ‘There is Lisi who cheated only Zhangsan.’)
- b. Zhǐ yǒu Lìsì [_{sec.pred} PRO [PP gēn tāmen] shāngliáng], (#yě yǒu Mǎlì).
 only exist Lisi with 3PL negotiate also exist Mary
 ‘There is only Lisi who negotiates with them (#and there is also Mary).’
 (Not: ‘There is Lisi who negotiates only with them.’)

In (38a–b), *zhǐ* ‘only’ exclusively focuses on *Lisi* as the internal argument of the matrix verb *yǒu* ‘exist’. The adverb *zhǐ* ‘only’ cannot associate with a DP in the secondary predicate, be it in postverbal (38a) or preverbal position (38b) (again irrespective of whether they bear phonological stress or not). The exclusiveness effect observed here points to a clear bipartitioning of the sentence into focus and presupposition and provides an additional argument for the structure proposed in this article, with the existential verb *yǒu* and its internal argument in the matrix clause and hence in a domain distinct from the secondary predicate TP.¹⁷

The facts in (38a–b) contrast with (39) from Erlewine (2015: 24), which is not an existential construction, but a standard SVO sentence: *zhǐ* ‘only’ occurs below the

¹⁶Thanks to Xie Zhiguo (p.c.) for attracting my attention to this important fact, initially observed by him for the additive focus adverb *hái* ‘in addition, still’ modifying *yǒu* ‘exist’:

- (i) Hái yǒu Lìsì [_{PRO} chī-le píngguǒ].
 in.addition exist Lisi eat-PERF apple
 ‘There is also Lisi who ate apples.’

(Not: ‘There is Lisi who also ate apples (in addition to other food).’)

¹⁷This is not an isolated phenomenon. When the copula *shì* ‘be’ is in sentence-initial position, we observe the same exclusive focus interpretation on the following DP, provided it bears phonological stress. (Otherwise, we obtain “broad focus” on the sentence as whole, that is, the entire assertion is strengthened.)

- (i) Shì Lìsì lái-le/piàn-le Zhāngsān (#dàn Mǎlì yě lái-le/ piàn-le Zhāngsān).
 be Lisi come-PERF/cheat-PERF Zhangsan but Mary also come-PERF/cheat-PERF Zhangsan
 ‘It is Lisi who came/cheated Zhangsan (#but Mary also came/also cheated Zhangsan.)’

For the complete and complex picture of focus cleft and association-with-focus in Mandarin Chinese, see Paul and Whitman (2008) and references therein. Also see Pan (2018).

subject *Lisi* and precedes the matrix verb *shuō* ‘say’, which in turn selects a clausal complement.

(39) *Lìsì zhǐ shuō* [Zhāngsān hē chá].

Lisi only say Zhangsan drink tea

(i) ‘Lisi only said that [Zhangsan]_F drinks tea.’

(ii) ‘Lisi only said that Zhangsan drinks [tea]_F.’

(iii) ‘Lisi only said [that Zhangsan drinks tea]_F (he didn’t say anything else).’

As noted by Erlewine (2015: 24) *zhǐ* ‘only’ can “associate with focus” with either the subject or the object DP in the clausal complement, where intonational prominence on the respective DP is required. A third possibility (not mentioned by Erlewine 2015) is association of *only* with the entire clausal complement, as in (39iii) (Liu Chang p.c.).

To summarize, when preceding the verb below the subject in a simple SVO sentence, *zhǐ* ‘only’ involves “association with focus” with any (intonationally prominent) DP in its c-command domain, that is, to its right. By contrast, when *zhǐ* ‘only’ precedes the verb *yǒu* ‘exist’ in the existential construction, this results in an exclusive focus on its internal argument, not on the DP(s) within the secondary predicate, thus indicating a bipartitioning into focus and presupposition.¹⁸

4. HĚN SHǎO RÉN ‘FEW PEOPLE’ AND HĚN SHǎO YǒU RÉN ‘THERE ARE RARELY PEOPLE’

The case of *hěn shǎo rén* ‘very few person’ = ‘few people’ is the most complex of the three alleged DP/QP candidates, foremost because quite a number of speakers downright reject it or only very marginally accept it.¹⁹ However, the same speakers use the existential construction *hěnrǎo yǒu rén* ‘rarely exist person’ = ‘There are rarely people’, where the adverb *hěnrǎo* ‘rarely’ precedes the verb *yǒu* ‘exist’; since sometimes *yǒu* ‘exist’ remains covert, this gives rise to an apparent QP: *hěn shǎo rén* ‘few people’ (see the discussion below).

Furthermore, even for those speakers who accept *hěn shǎo rén* ‘few people’ (without any covert *yǒu* ‘exist’), it is *not* simply the antonym of the QP *hěn duō rén* ‘many people’, as tacitly assumed in the literature. In particular, it is *not* possible

¹⁸This bipartitioning is best captured by (25) above, hence my opting for this structure. The exclusive matrix scope of *zhǐ* ‘only’ also shows that we need to distinguish between focus domain and c-command, *yǒu* ‘exist’ and with it the preceding adverb *zhǐ* ‘only’ c-commanding all the material to its right.

¹⁹It is fiendishly difficult to parse and gloss coherently in this section. I have opted for the following compromise. (a) *Hěn shǎo rén* ‘very few person’ = ‘few people’, because the speakers using it model it on the *bona fide* QP *hěn duō rén* ‘very much person’ = ‘many people’. (b) The adverb *hěnrǎo* ‘rarely’ is analyzed and presented as one word, notwithstanding its transparent internal structure *hěn* ‘very’ + *shǎo* ‘few, little’. This is motivated by its co-existence with the adverb *shǎo* ‘little, a bit’ (see (41) below).

to simply attribute differences between the two to the semantic contrast between monotone decreasing vs. increasing quantifiers. Instead, the differences observed are foremost due to syntax, in particular the fact that *hěn shǎo rén* ‘few people’ does not have the same distribution as *hěn duō rén* ‘many people’.

As demonstrated below in this section, native speakers can be divided into three groups. I start out with providing the data baseline, representative of group 1, which will then serve as backdrop for the description of groups 2 and 3. I call this *data baseline*, because groups 2 and 3 likewise use the constructions judged acceptable by group 1. Group 3 is the most “encompassing” group, for it in turn accepts the constructions judged well-formed by group 2. Importantly, young speakers (i.e., university students) are present in all groups, although to a lesser degree in group 1. We thus do not observe an “ongoing change” here, because for a given individual speaker, there is no change at all, given that s/he has a fixed set of syntactic and semantic properties associated with her/his grammar of *hěnrhǎo yǒu rén* ‘there are rarely people’ and *hěn shǎo rén* ‘few people’, respectively. “Ongoing change” is an unfortunate metaphor used by the linguist when confronted with the simultaneous existence of groups of native speakers having different internalized grammars for a given linguistic phenomenon. (See Hale 2007 for extensive discussion of *syntactic change* vs. *diffusion* of that change.)

4.1. The data baseline: Group 1

As just mentioned, when preceding the existential verb *yǒu* ‘exist’ (40a) or other verbs (40b–c), *hěnrhǎo* instantiates the adverb ‘rarely, on few occasions’:

- (40) a. [TP (Zhèlǐ) [_{VP} hěnrhǎo [_{VP} yǒu rén]]].
 here rarely exist person
 ‘There are rarely people (here).’²⁰
- b. Tā hěnrhǎo lái.
 3SG rarely come
 ‘He rarely comes.’
- c. Tā hěnrhǎo (bù) zài jiā.
 3SG rarely NEG be.at home
 ‘He’s rarely (not) at home.’

By comparison, the adverb *shǎo* means ‘a bit, little, less’:

- (41) Bìng gāng hǎo, shǎo huódòng
 illness just good little practice
 ‘Your illness has just been cured, practice [only] a little bit (i.e., as little as possible).’
 Lü 2000: 480

When wanting to ascribe a predicate to a small number of people, speakers from Group 1 use the existential construction with a secondary predicate, where *yǒu* ‘exist’

²⁰Here and in the remainder of the section, I have opted for a translation that mirrors the Chinese word order as much as possible, rather than an idiomatically correct translation: ‘Rarely is there anyone who...’

is modified by the adverb *hěnsǎo* ‘rarely’. They never use *hěn shǎo rén* ‘few people’, and every sentence-initial *hěn shǎo rén* is spontaneously corrected by adding *yǒu* ‘exist’: *hěnsǎo yǒu rén* ‘rarely exist person’.

- (42) a. Zhè jǐ nián tā de shū mài de hěn hǎo,
 this several year 3SG SUB booksell DE very good
 dàn yǐqián hěnsǎo yǒu rén mǎi.
 but before rarely exist person buy
 ‘In the last couple of years his book has been selling very well; but before, there were rarely people buying [it].’
- b. Hěnsǎo yǒu wàiguórén chī shérou.
 rarely exist foreigner eat snake.meat
 ‘There are rarely foreigners eating snake meat’

This existential construction is also used with NPs different from *rén* ‘person’ (42b).

The adverb status of *hěnsǎo* ‘rarely’ and hence the clausal nature of ‘*hěnsǎo yǒu DP*’ is particularly neat in the examples below provided by an anonymous reviewer, where the internal argument DP can be independently quantified (43a).

- (43) a. Zhèlǐ hěnsǎo yǒu [shí ge rén]_i [PRO_i yìqǐ hē kāfēi].
 here rarely exist 10 CL person together drink coffee
 ‘There are rarely 10 people having a coffee together here.’ (my translation)
- b. Zhè ge kāfēiguǎn hěnsǎo yǒu zhōngguórén;
 this CL coffee.shop rarely exist Chinese.person
 [PRO_i lái hē kāfēi], dànshì yīyǒu, jiù yǒu wúshíduō ge.
 come drink coffee but one exist then exist 50 muchCL
 ‘This coffeeshop, there are rarely Chinese coming [here] to drink coffee, but as soon as there are [Chinese], then there are immediately more than 50.’

Examples (43a–b) likewise demonstrate that *hěnsǎo* ‘rarely’ only modifies the matrix existential verb.

Given its clausal status, *hěnsǎo yǒu rén* ‘there are rarely people’ is naturally unacceptable in the postverbal object position (with verbs selecting only DPs) and as complement of prepositions; it thus contrasts with the QP *hěn duō rén* ‘many people’, which as a nominal projection is acceptable here (for all speakers):

- (44) a. Tā pèngdào-le [QP hěn duō rén]/*[TP hěnsǎo yǒu rén].
 3SG meet-PERF very much person/ rarely exist person
 ‘He met many people.’/(‘He met [there are rarely people].)’
- b. Tā [PP gēn] [QP hěn duō rén]/*[TP hěnsǎo yǒu rén] shuō huà.
 3SG with very much person/ rarely exist person talk word
 ‘He talks with many people.’/(‘He talks with [there are rarely people].)’

Again, the same holds for NPs other than *rén* ‘person’:

- (45) a. Tā rènshì [QP hěn duō xuésheng]/*[TP hěnsǎo yǒu xuésheng].
 3SG know very much student/ rarely exist student
 ‘He knows (i.e., is acquainted with) many students/*there are few students.’

- b. Tā [PP gēn [QP hěn duō xuésheng]/*[TP hěnnshǎo yǒu xuésheng]
 3SG with very much student/ rarely exist student
 shuō huà.
 say word
 ‘He talks with many students/*talks with there are few students.’

The meaning intended in (45a) ‘He knows few people/students’ can be rendered as in (46), with the quantitative adjective *shǎo* ‘be little, few’ as matrix predicate:

- (46) [TP [DP Tā rènshì de rén/ xuésheng] [AP hěn shǎo/ tài shǎo]].
 3SG know SUB person/student very be.few/too be.few
 ‘The persons/students he knows are few/too few.’

The adverb *hěn* ‘very’ is required for the positive degree and therefore remains untranslated, in contrast to other degree adverbs such as *tài* ‘too’ (see Paul 2010 and references therein).

There is also a translation corresponding structurally more closely to the English ‘He knows few people/students’, with *hěn shǎo* as modifier of *rén* ‘person’ and *xuésheng* ‘student’, respectively, and followed by the subordinator *de*:²¹

- (47) %Tā rènshì [DP hěn shǎo de rén/ xuésheng]
 3SG know very be.few SUB person/student
 ‘He knows few people/students.’²²

The construction in (47) with an uncontroversial DP as object is in principle acceptable for many speakers, although to different degrees (as indicated by “%”). Importantly, while (47) is subject to many constraints (see section 4.2 immediately below), this is not the case for (46), which is the preferred, most “natural” version, even for speakers who fully accept (47).

The discussion of the constraints holding for (47) will lead us beyond the data baseline and will confront us with variation among native speakers, indicating the co-existence of several groups. Importantly, the speakers from groups 2 and 3 accept the constructions judged as well-formed in the baseline data, but differ in whether and in which syntactic contexts they accept *hěn shǎo rén* ‘few people’ and *hěn shǎo de rén* ‘few people’.

4.2. Beyond the data baseline: Group 2

Liu (2011: 103) provides the following triplet to illustrate the constraints holding for *hěn shǎo* ‘very be.few’ as DP modifier:²³

²¹*De* is the realization of several heads on the D-spine, the highest being *D°*, and thus clearly indicates the DP status of the phrase at hand (see Paul 2012, 2017b and references therein). While *de* as head takes a nominal projection as complement to its right and hosts the modifier in its specifier position [DP [AP hěn shǎo] [D° de [NP rén]]], its glossing as *subordinator* reflects the semantic relationship between the modifier and the modified.

²²I see no way to indicate the contrast between *hěn shǎo rén* ‘few people’ and *hěn shǎo de rén* ‘few people’ by a difference in translation.

²³Liu’s (2011) article focusses on inalienable vs. alienable possession and the corresponding optionality of the subordinator *de* and discusses the data involving *hěn shǎo* ‘very be few’ in passing only.

- (48) a. *Wǒ kànjian-le [hěn shǎo gùkè].
 1SG see-PERF very be.few customer
 (Intended: ‘I have seen few customers.’)
- b. 95% Wǒ kànjian-le [DP hěn shǎo de gùkè].
 1SG see-PERF very be.few SUB customer
 ‘I have seen few customers.’
- c. 100% Wǒ zhǐ kànjian-le [DP hěn shǎo de gùkè].
 1SG only see-PERF very be.few SUB customer
 ‘I have only seen few customers.’
 (Liu 2011: 103, (26–28); glosses, translation and bracketing added)

The contrast between (48a) and (48b) shows that *hěn shǎo* ‘very be.few’ as Adjectival Phrase requires the subordinator *de* when modifying a DP. However, even with *de*, (48b) is not 100% felicitous, either, but requires the presence of the adverb *zhǐ* ‘only’ preceding the verb, an observation confirmed by the native speakers consulted.

The judgements in (48a–c) likewise hold for *rén* ‘person’ in *hěn shǎo rén* ‘few people’ as well as *hěn shǎo de rén* ‘few people’ and define the native speakers I refer to as group 2:

- (49) a. ???Wǒ kànjian-le [hěn shǎo rén].²⁴
 1SG see-PERF very be.few person
 (Intended: ‘I have seen few people.’)
- b. 95%Wǒ kànjian-le [DP hěn shǎo de rén].
 1SG see-PERF very be.few SUB person
 ‘I have seen few people.’
- c. 100% Wǒ zhǐ kànjian-le [DP hěn shǎo de rén].
 1SG only see-PERF very be.few SUB person
 ‘I have only seen few people.’

For PPs with *hěn shǎo de rén* ‘few people’ as complement, *zhǐ* ‘only’ modifying the entire VP, including the preverbal adjunct PP, is again required for full acceptability. Note that group 1 speakers likewise accept these PPs:

- (50) Tā [vP zhǐ [vP [PP gēn [DP hěn shǎo de rén/ xuésheng]]
 3SG only with very be.few SUB person/student
 [vP shuō huà]].
 speak word
 ‘She only speaks with few people/few students.’

Besides the presence of the adverb *zhǐ* ‘only’, Liu (2011: 104) observes other constraints holding for ‘*hěn shǎo de NP*’, such as a parallelism requirement:

- (51) a. [DP Hěn shǎo de qián] bànchéng-le [DP hěn dà de shì].
 very be.few SUB money accomplish-PERF very be.big SUB matter
 ‘Little money has accomplished great things.’

²⁴The presence of *zhǐ* ‘only’ does not improve sentences with *hěn shǎo rén* ‘few people’ in object position.

- b. [_{DP} Hěn shǎo de qián] jiù mǎi [_{DP} hěn shǎo de dōngxī].
 very be.few SUB money then buy very be.few SUB thing
 ‘Little money only buys few things.’

Furthermore, he construes several minimal pairs of the type illustrated in (52a) and (53a) below with *hěn duō* ‘very be much’ and *hěn shǎo* ‘very be few’ as modifiers in an object DP, and states the systematic unacceptability of the latter. Recall from the discussion of (46) above that the paraphrases in (52b) and (53b) are perfectly acceptable for all speakers.

- (52) a. Tā yǒu [_{DP} hěn duō de yáchǐ]/*[_{DP} hěn shǎo de yáchǐ].²⁵
 3SG have very be.much SUB tooth/ very be.few SUB tooth
 ‘He has many teeth/few teeth.’
- b. [_{DP} Tā de yáchǐ] [_{AP} hěn shǎo/ hěn duō].
 3SG SUB tooth very be.few/very be.much
 ‘His teeth are few/many.’
- (53) a. Tā jiā yǒu [_{DP} hěn duō de fángzi]/
 3SG home have very be.much SUB room/
 *[_{DP} hěn shǎo de fángzi].
 very be.few SUB room
 ‘His home has a lot of rooms/few rooms.’
- b. [_{TP} [_{DP} Tā jiā de fángzi] [_{AP} hěn shǎo/ hěn duō]].
 3SG home SUB room very be.few/very be.much
 ‘The rooms of his home are few/many.’

Liu (2011) therefore concludes that *hěn shǎo de* NP ‘very be.few SUB NP’ is *not* on a par with *hěn duō (de)* NP ‘very be.much SUB NP’ = ‘many NP’, where no such constraints are observed and where the subordinator *de* is optional, not obligatory as it is for *hěn shǎo* (see (49a–b) above).

Concerning *hěn shǎo rén* ‘few people’, Liu (2011: 103) reports 189 instances in texts dating from the late 1990s in the corpus of the Center for Chinese Linguistics at Peking University, all of them occurring in sentence-initial position.²⁶ There are no examples of *hěn shǎo* ‘very be few’ directly preceding NPs, other than *rén* ‘person’, in his corpus. The few examples of *hěn shǎo* NP (i.e., without the subordinator *de*) found via a Google search are judged as only marginally acceptable by Liu (2011: 104: 30, 31). In addition, *hěn shǎo* ‘very be few’ is not a DP modifier here, because adding *de* leads to an unacceptable result; instead *yǒu* ‘exist’ must be reconstructed as in (54) below, i.e., these are cases of the existential construction with *hěnrhǎo* as adverb ‘rarely’ and a secondary predicate on the internal argument NP of *yǒu* ‘exist’: ‘there are rarely NP VP-ing’:

- (54) Zài déguó, hěnrhǎo ??(yǒu) xuésheng yòng zìdiǎn.
 at Germany rarely exist student use dictionary
 ‘In Germany, there are rarely students using dictionaries.’

(Liu 2011: 104; (32))

²⁵*Yǒu* here is the transitive verb ‘have, possess’.

²⁶See <http://ccl.pku.edu.cn:8080/ccl_corpus/index.jsp?dir=xiandai>

Going back to the 189 instances of the sequence *hěn shǎo rén* attested in the Peking University corpus, the fact that they exclusively occur in sentence-initial position provides us with an important clue. Given the lack of an expletive subject in the existential construction in Chinese and the fact that *hěnrhǎo* ‘rarely’ is a vP level adverb, the only XPs liable to precede the existential construction *hěnrhǎo yǒu rén* are sentence-level adverbs or adjunct XPs (such as the PP *zài déguó* ‘in Germany’ in (54)). When *yǒu* ‘exist’ is covert, the surface sequence *hěn shǎo rén* can be reanalyzed as a nominal projection in the subject position (SpecTP), and the secondary predicate as matrix predicate. This is the reason why *hěn shǎo rén* ‘few people’ exclusively occurs in the subject position, that is, in a sentence-initial position in the broad sense, as explained above. Examples (55a) and (55b) below show the two relevant parsings:

- (55) a. [_{TopP} Qíshí [_{TP} [_{vP} hěnrhǎo [_{vP} (yǒu) rén_i
in.fact rarely exist person
[_{sec.pred.} PRO_i [_{vP} huì duì nǐ hǎo]]]]]]
will towards 2SG be.good
‘In fact, there are rarely people who will be good to you.’
- b. [_{TopP} Qíshí [_{TP} [_{QP} hěn shǎo rén] [_{T'} [_{T'} Ø] [_{vP} huì duì nǐ hǎo]]]]].
in.fact very few person will towards 2SG be.good
‘In fact, few people will be good to you.’²⁷

This is a plausible reanalysis, because the c-command relations between all constituents are maintained in (55b); that is, (55b) shows the same hierarchical relations as (55a), in accordance with the *Conservancy of Structure Constraint* (Whitman 2001). Importantly, both constructions (55a) and (55b) remain in use and can be employed by the same speaker (see the discussion immediately below). Concerning the semantic side, quantifying over a situation as in *hěn shǎo yǒu rén* VP ‘there are rarely people VP-ing’ can – depending on the meaning of the sentence – imply ‘few people VP’, and it is this possible implication which gives rise to the analysis of *hěn shǎo rén* with a covert *yǒu* ‘exist’ as a QP ‘few people’ when followed by a secondary predicate.

Note that assuming a covert *yǒu* ‘exist’ is not an isolated fact limited to the existential construction with the adverb *hěnrhǎo* ‘rarely’; a covert verb was likewise posulated for the adverb *zhǐ* ‘only’ plus DP in sentence-initial position (see (32a) above, repeated in footnote 28 below). However, while in the case of sentence-initial *zhǐ* DP ‘only DP’, there are indeed reasons to assume that *yǒu* ‘exist’ is always present, albeit

²⁷Like most sentence-level adverbs and adjunct XPs, *qíshí* ‘in fact’ can precede or follow the subject (see Paul 2017a for discussion and references). For ease of comparison between (55a) and (55b), *qíshí* ‘in fact’ in (55a) is directly located in the topic position, SpecTopP, although a TP-internal position is equally plausible, given the absence of a subject in the existential construction. Importantly, both positions are compatible with the reanalysis proposed, the only difference being that with a TP-internal adverb position in (55a), the reanalysis would also induce a change of position for *qíshí* ‘in fact’, from a TP-internal to a TP-external position, but always above *hěnrhǎo* ‘rarely’ and *hěnrhǎo rén* ‘few people’, respectively.

covertly,²⁸ the situation is different for *hěn shǎo rén* ‘few people’. Because for a subset of group 2 speakers, sentence-initial *hěn shǎo rén* ‘few people’ no longer involves a covert *yǒu* ‘exist’, but has been reanalyzed as a QP ‘few people’, as evidenced by the difference these speakers make between *hěn shǎo yǒu rén* ‘there are rarely people’, on the one hand, and *hěn shǎo rén* ‘few people’, on the other:

- (56) a. Dànshì xiànzài hěnrǎo yǒu rén jiěshòu zhè zhǒng kànfǎ.
 but now rarely exist person accept this CL view
 ‘However, nowadays there are rarely people who accept this view.’
- b. Wǒ gānggāng wèn-guo tāmen,
 1SG just ask-EXP 3PL
 dànshì hěn shǎo (*yǒu) rén jiěshòu zhè zhǒng kànfǎ.
 but very few exist person accept this CL view
 ‘I have just asked them, but few [of them] accept this view.’²⁹

In (56b), *yǒu* ‘exist’ is ruled out, because *hěn shǎo rén* ‘few (of them)’ has *tāmen* ‘they’ in the first part as antecedent; accordingly, only a nominal projection is acceptable here and the existential construction is excluded. Example (56a), however, lacks such a constraining syntactic context and therefore allows for the existential construction ‘there are rarely people’ plus a secondary predicate, given that the overall meaning of the sentence is compatible with such a general statement.³⁰

4.3. Group 3

The situation seems to have further evolved since the time of Liu’s (2011) article and there is another, third group in addition to the baseline speakers (group 1) and to those described by Liu (2011), that is, my group 2. This third group not only accepts the QP *hěn shǎo rén* ‘few people’ in subject position (as group 2 does), but also in object position, where group 2 only accepts the DP *hěn shǎo de rén*, with *hěn shǎo* ‘be few’ as a DP internal modifier. *Hěn shǎo rén* ‘few people’ as complement in a PP is likewise fine for group 3:

- (57) a. Wǒ kànjian-le [hěn shǎo rén/ hěn duō rén].
 1SG see-PERF very few person/very much person
 ‘I have seen few/many people.’

²⁸The contrast between (i) (= (32a) above) and (ii) shows that *yǒu* ‘exist’ must be overt with proper names and may only remain covert with quantified expressions:

(i) [TP [PostP Wūzi li] [vP zhǐ [vP (yǒu) [NumP Lǎo Wáng [yī ge rén]]]].
 room in only exist Lao Wang 1 CL person
 ‘In the room there was only the one person Lao Wang.’

(ii) [TP [PostP Wūzi li] [vP zhǐ [vP *(yǒu) [DP Lǎo Wáng]]]].
 room in only exist Lao Wang
 ‘In the room there was only Lao Wang.’

²⁹Many thanks to Chan Tsan Tsai for providing this minimal pair.

³⁰Since they never use *hěn shǎo rén* ‘few people’, speakers of group 1 naturally do not have this contrast. The speakers of group 3, however, all have this contrast, since they also allow *hěn shǎo rén* ‘few people’ in object position (see section 4.3 immediately below).

- b. Wǒ de péngyou hěn shǎo, suǒyǐ wǒ zhǐ
 1SG SUB friend very be.few therefore 1SG only
 [PP duì [hěn shǎo rén]] hǎo.
 towards very few person good

‘My friends are few; therefore I’m only friendly with few people.’

(Lin Jo-Wang, p.c.)

In addition, again unlike group 2, group 3 speakers also allow QPs with NPs other than *rén* ‘person’ (58a). They also accept *hěn shǎo* as DP modifier with *de* (58b), as group 2 does, *modulo* the fact that the adverb *zhǐ* ‘only’ is not required. In other words, group 3 speakers seem to analyze *hěn shǎo* ‘few’ on a par with *hěn duō* ‘many’, either as a modifier (with *de*) or as a quantifier (without *de*):

- (58) a. Wǒ kànjian-le [QP hěn shǎo gùkè/ hěn duō gùkè].
 1SG see-PERF very few customer/very be.much customer
 ‘I have seen few/many customers.’
- b. Wǒ kànjian-le [DP hěn shǎo de/ hěn duō de gùkè].
 1SG see-PERF very be.few SUB/very be.much SUB customer
 ‘I have seen few/many customers.’ (see (48a–c) above)

Group 3 co-exists with the two other groups and accepts all constructions judged well-formed for groups 1 and 2; importantly, all three of them include young speakers (i.e., university students), although as a minority in group 1. Vice versa, speakers of groups 1 and 2 are very well aware of group 3 speakers, as reflected in comments such as ‘This construction is unacceptable for me, but it may be fine for others’. This is especially the case for group 2 speakers when confronted with *hěn shǎo rén* ‘few people’ in object position.

Note, though, that notwithstanding the acceptance by native speakers of *hěn shǎo rén* ‘few people’ in object position in judgement tasks, the actual distribution of *hěn shǎo rén* ‘few people’ and *hěn shǎo de rén* ‘few people’ is much more constrained than that of *hěn duō (de) rén* ‘many people’. More precisely, the majority of *hěn shǎo rén* ‘few people’ occurs in sentence-initial position, that is, the position where the reanalysis of *hěn shǎo yǒu rén* ‘there are rarely people’ as a QP *hěn shǎo rén* ‘few people’ took place, and there are only a few cases of *hěn shǎo rén* ‘few people’ in the postverbal object position. By contrast, the majority of *hěn shǎo de rén* ‘few people’ (with the subordinator *de*) are found in postverbal object position. This is the result of a corpus search (filtered by checks with native speakers) for *hěn shǎo yǒu rén* ‘there are rarely people’, *hěn shǎo rén* and *hěn shǎo de rén* ‘few people’.³¹ The brief overview of the figures for each sequence below does not claim any statistic validity; its main purpose is to highlight the complexity of the data situation for both *hěn shǎo rén* and *hěn shǎo de rén* ‘few people’ and to insist on the fact that they are *not* simply the counterpart of *hen duo (de) ren* ‘many people’ and can therefore not be directly compared with, for example, the English QPs *many people* and *few people*, either.

³¹The corpus consulted is hosted by the Beijing Language University, available at: <<http://bcc.blcu.edu.cn/>>.

Let us start with *hěn shǎo yǒu rén* ‘there are rarely people’, with 419 examples from literary works, 2253 from newspapers and periodicals, and 1892 from the microblogging website *Weibo*. Nearly all examples feature a secondary predicate (59b–c), and there are only a handful of examples with *hěn shǎo yǒu rén* on its own (59a):

- (59) a. Zhèng shì jiàqī, xuéxiào mén qián hěnrǎo yǒu rén.
 just be holidays school door in.front rarely exist people
 ‘It’s the holidays right now, there are rarely people in front of the school entrance.’
 (newspapers/periodicals)
- b. Guòqù hěnrǎo yǒu rén shàng xué.
 past rarely exist person attend school
 ‘In the past there were rarely people going to school.’ (newspapers/periodicals)
- c. Nǐ zài tiānjīn wèn lù, hěnrǎo yǒu rén bù gào sù nǐ.
 2SG at Tianjin ask road rarely exist person NEG tell 2SG
 ‘If in Tianjin you ask for directions, there are rarely people who don’t tell you.’
 (*Weibo*³²)

The high frequency of *hěn shǎo yǒu rén* ‘there are rarely people’ in *Weibo* clearly shows that *hěn shǎo yǒu rén* is likewise used by the younger generation (as the probable majority among bloggers),³³ a result confirmed by an informal acceptability judgement test with 15 native speakers (between 22 and 27 years) carried out by Yan Shanshan (p.c.) at Peking University

Turning now to *hěn shǎo rén* ‘few people’, the corpus provides 147 examples from literary texts, 307 examples from newspapers and periodicals, and 886 from the blog *Weibo*. Importantly, the majority appears in the subject position (including the subject position in complement clauses, see (63)), where it may be preceded by sentence-level adverbs such as *guòqù* ‘in the past’ and *hòulái* ‘afterwards, later’, as well as topicalized phrases (see (60)).³⁴ As explained above, these are the very same syntactic environments that allow for the existential construction, given that *hěnrǎo* ‘rarely’ as VP-level adverb must follow sentence-level adverbs and topicalized XPs. This is illustrated by (63), where the native speakers consulted about the corpus sentence (63a) in fact either preferred or required the presence of *yǒu* ‘exist’ (see (63b)), because the existential construction was judged more appropriate for conveying the intended general statement:

- (60) [_{TOPP} [_{DP} Zhè duàn cáiliào] [_{TOPP} guòqù [_{TP} hěn shǎo rén [_{VP} zhīdào]]]].
 this CL material past very few person know
 ‘This material, in the past few people knew about it.’

³²Some speakers prefer to add *huì* ‘will’ after the negation *bù*: ‘there are rarely people who will not tell you.’

³³Note that for *Weibo*, the corpus often provides multiple repetitions of the same sentence.

³⁴All of the examined 147 examples from literary texts show *hěn shǎo rén* ‘few people’ in subject position. I had a cursory look at the 307 examples from newspapers and periodicals and went through the first 200 examples from *Weibo* without finding any instance of *hěn shǎo rén* in object position.

- (61) Hòulái hěn shǎo rén zài jiāotán, lián Mǎ Xiū yě zhǐ shuō
 later very few person again chat even Ma Xiu also only speak
 jǐ jù huà.
 several CL word
 ‘Later, few people resumed talking, even Xiu Ma only spoke a few words.’
 (literary text)
- (62) Jīntiān hǎoxiàng hěn shǎo rén shàng bān.
 today apparently very few person attend work
 ‘Today apparently few people go to work.’
 (Weibo)
- (63) a. Wǒ kànjian [TP hěn shǎo rén bù zhùyì tīng biérén
 I SG see very few person NEG heed listen other.person
 de fā yán].
 SUB emit word
 ‘I observe that few people do not heed and listen to what others say.’
 (Weibo)
- b. Wǒ kànjian [TP [VP hěnrǎo [VP yǒu rén_i [PRO_i bù zhùyì tīng...]]].
 I SG see rarely exist person NEG heed listen
 ‘I observe that there are rarely people who do not heed and listen to what others say...’

The case of (63a–b) illustrates the necessity to control for a covert existential verb *yǒu* in the instances of sentence-initial *hěn shǎo rén* ‘few people’ and the impossibility of automatically assigning it the same QP status as *hěn duō rén* ‘many people’.

The few examples of *hěn shǎo rén* ‘few people’ in postverbal position, hence as a QP, show it as internal argument of either the unaccusative verb *lái* ‘come’ or the existential verb *yǒu* preceded by the adverb *zhǐ* ‘only’:

- (64) a. Jīntiān de yīngyǔ kè guǒrán lái-le hěn shǎo rén.
 today SUB English class really come-PERF very few person
 ‘There really came few people to today’s English class.’
 (Weibo)
- b. Zhǐ yǒu hěn shǎo rén néng dú-dào jiǔ niánjí yǐshàng.
 only exist very few person can study-reach 9 grade above
 ‘There are only few people who can go to school beyond the ninth grade.’
 (newspaper/periodicals)
- c. Zhǐ yǒu [hěn shǎo rén]_i [PRO_i néng zhǎngwò hùnníngtǔ jiǎobàn
 only exist very few person can master concrete stir
 gōngchǎng de jīqì].
 factory SUB machine
 ‘There are only few people who can master the machinery of the concrete mixing plant.’
 (newspaper/periodicals)

Evidently, (64a–c) are only acceptable for the speakers from (a subset of) groups 2 and 3 who, in addition to *hěn shǎo yǒu rén* ‘there are rarely people’, also have the QP *hěn shǎo rén* ‘few people’ in their grammar. By contrast, speakers from group 1 simply reject (64a–c).

Note that it is the necessity of presenting the facts in a certain order that gives the impression of a linear development, with new groups adding on successively, but this

does not reflect the real situation. Instead, the three groups seem to have co-existed for a long time, as demonstrated by the early attestation of *hěn shǎo rén* ‘few people’ as a QP in postverbal position in (64c) above from a 1953 article of the *Rénmínrìbào* ‘People’s Daily’; similarly, (64b) dates back to 1987 in the same newspaper. What we observe evolving in time is the *diffusion* among the speakers of the analysis of *hěn shǎo rén* as QP, with a clear increase in the last decade.

The preceding discussion demonstrates that *hěn shǎo rén* ‘few people’ does not show the same distribution as *hěn duo rén* ‘many people’ and can therefore not be considered as its counterpart in syntax, notwithstanding their antonymic relationship.

Turning now to the DP *hěn shǎo de rén*, with the AP *hěn shǎo* ‘very be.few’ as modifier of *rén* ‘person’, the corpus provides 16 examples from literary texts, 76 from newspapers and periodicals, and 108 from *Weibo*. Across these different text sorts, there are hardly any occurrences in subject position. The majority of cases occur in the object position of a verb modified by the adverb *zhǐ* ‘only’ (including many instances of the existential construction *zhǐ yǒu* ‘there is only’ (65)), thus confirming Liu’s (2011) observation (see section 4.2 above). Among the 108 examples from *Weibo* (again with many sentences occurring twice), there are only five with *hěn shǎo de rén* ‘few people’ in subject position (66):

- (65) Zhǐ yǒu [DP hěn shǎo de rén]_i [PRO_i dǒngdé].
 only exist very few SUB person understand
 ‘There are only few people who understand.’ (Weibo)
- (66) Hěn shǎo de rén jìdé.
 very few SUB person remember
 ‘Few people remember [it].’ (Weibo)

Finally, there is a variant of *hěn shǎo de NP*, where *hěn shǎo* does not modify a bare noun, but the Number Phrase ‘*jǐ CL NP*’ = ‘several NP’, as in (67) from Liu (2011):

- (67) Wǒ kànjian-le [DP hěn shǎo de [NumP jǐ ge gùkè]].
 1SG see-PERF very be.few SUB several CL customer
 ‘I have seen very few, i.e., a (mere) handful of customers.’
 (Liu 2011: 103, (29))

Note that the relative order is rigid. Given that *jǐ* ‘several’ refers to a number between 3 and 9, in combination with *hěn shǎo* ‘very be.few’, this results in the meaning of ‘very few NP, a (mere) handful of NP’.

Hěn shǎo de jǐ ge NP ‘a handful of NP’ (including *rén* ‘person’ as NP) is fully acceptable for all speakers across the three groups and is a *bona fide* DP on par with *hěn shǎo de NP* ‘few people’; hence, it is acceptable in object position (see (67), (68)) and as complement of a preposition (see (69) elicited from a native speaker, there being no examples of this type in the corpus), *modulo* the required presence of the adverb *zhǐ* ‘only’ for some speakers.

- (68) Wǒ bǎoliú-le [DP hěn shǎo de jǐ fēng].
 1SG keep-PERF very few SUB several CL
 ‘I kept a mere handful [of letters].’ (Weibo)

- (69) Tā [_{VP} zhǐ [_{VP} [PP gēn [_{DP} hěn shǎo de jǐ ge rén]] shuō huà]].
 3SG only with very few SUB several CL person speak word
 ‘She only speaks with a handful of people.’
- (70) [_{DP} Hěn shǎo de jǐ jù huà] biàn kěyǐ biǎodá
 very few SUB several CL word then can express
 [_{DP} hěn duō de yìsi].
 very much SUB meaning
 ‘A mere handful of words can express many meanings.’

(Weibo)

As already observed for *hěn shǎo de rén* ‘few people’, the occurrence of *hěn shǎo de jǐ* CL NP ‘a mere handful of NP’ in subject position is relatively rare (70).

4.4. Interim summary

Starting with the last items discussed, viz. *hěn shǎo de rén*, this is a DP with an adjectival modifier, *not* a QP, and can therefore not be considered the equivalent of, for instance, the QP *few people* in English. This is confirmed by the possibility of *hěn shǎo* ‘very be few’ to modify the Number Phrase *jǐ ge rén* ‘several CL person’ as in *hěn shǎo de jǐ ge rén* ‘a (mere) handful of people’. Furthermore, *hěn shǎo rén* ‘few people’ is *not* the counterpart of the QP *hěn duō rén* ‘many people’, either, given that many speakers simply do not accept this sequence; instead, they use the existential construction, *hěnrǎo yǒu rén* ‘there are rarely people’.

Those speakers who do accept *hěn shǎo rén* ‘few people’ as a QP mostly use it in subject position and only rarely in object position; the latter is the position where *hěn shǎo de rén* ‘few people’ occurs most frequently. *Hěn shǎo rén* thus contrasts with the QP *hěn duō rén* ‘many people’ which is fully acceptable in both subject and object position. In addition, for *hěn shǎo rén* in subject position the presence of a covert existential verb *yǒu* is not excluded and must be controlled for. Concerning *hěn shǎo rén* ‘few people’ in object position ‘NP V [*hěn shǎo rén*]’, even speakers accepting it often prefer the construction [[_{DP} [NP VP *de*] *rén*] [_{AP} *hěn shǎo*]] where *hěn shǎo* ‘very be.few’ is the matrix predicate and the subject DP contains a relative clause: ‘[[The people he knows] are few]’ ~ ‘He knows [few people]’.

Given these numerous constraints, it is evident that *hěn shǎo rén* ‘few people’ *cannot* be used as a basis for developing any crosslinguistic claims involving QPs. The tests applied to pairs of monotone increasing vs. decreasing quantifiers in other languages must be used with caution in Chinese, and among the items discussed here may *at best* be applied to *hěn shǎo rén* ‘few people’ vs. *hěn duō rén* ‘many people’ when in *subject* position (plus the necessary control for a covert existential verb *yǒu*). By contrast, against the backdrop of the present article, it is now very easy to determine whether other potential QP-candidates in Chinese, such as the equivalent of ‘less than half of’, ‘at most three’ etc., are indeed nominal projections by checking their acceptability in postverbal object position.

5. BACK TO THE BEGINNING: HOW TO ACCOUNT FOR THE OBSERVED CONTRASTS

Having established that *méi yǒu rén* ‘there isn’t anybody’, *zhǐ yǒu DP* ‘there is only DP’, and the subset of *hěn shǎo rén* that contains a covert existential verb *yǒu* ‘there are rarely people’ are existential constructions, not nominal projections, we can now explain the contrast between (1a) and (1b), repeated as (71a) and (71b) (my parsing, glosses, and translation):

- (71) a. *_[matrix TP] _[vP] {Méi you rén_i/zhǐ yǒu Lǐsì/hěnrǎo (yǒu) rén_i}
 NEG exist person/only exist Lisi/rarely exist person
 _{[sec.pred PRO_i wèishénme cí zhí]]?}
 why resign job
 (‘There wasn’t anybody/was only Lisi/were rarely people} who resigned why?’)
- b. _[matrix TP Wèishénme] _[vP] {méi you rén_i/zhǐ yǒu Lǐsì/
 why NEG exist person/only exist Lisi/
 hěnrǎo (yǒu) rén} _{[sec.pred PRO_i cí zhí]]?}
 rarely exist person resign job
 ‘Why {wasn’t there anybody/was there only Lisi/were there rarely people}
 who resigned?’

As explained in section 1 above, *cí zhí* ‘resign job’ = ‘resign’ is a secondary predicate on *rén* ‘person’.³⁵ Example (71a) is unacceptable, because *wh*-questions are banned from a secondary predicate when the matrix verb is negated or modified by a quantificational adverb (also see the non-felicitous English translation). In (71b), by contrast, *wèishénme* ‘why’ is in the matrix clause of the existential construction and acceptable; again, the same holds for English, as illustrated by the translation. (For *hěn shǎo rén* as QP, i.e., without a covert existential verb *yǒu*, see (78) below).

The unacceptability of (72) with *shénme* ‘what’ in object position confirms that (71a) is excluded by a general ban on *wh*-questions (adjunct and argument alike) in secondary predicates under a negated or quantified matrix existential verb:

- (72) *_[matrix TP] {Méi you rén/ zhǐ yǒu Lǐsì/hěn shǎo (yǒu) rén_i}
 NEG exist person/only exist Lisi/very few exist person
 _{[sec.pred PRO_i chī-guo shénme]]?}
 eat-EXP what
 (‘{There wasn’t anybody/was only Lisi/there were rarely people} who ate what?’)

Again, the English translation reflects rather well that the presence of a *wh*-phrase inside the secondary predicate is the source of the unacceptability, *modulo* the fact that a relative clause is used to translate the secondary predicate in Chinese. In fact, if at all, (72) can only be accepted as an echo question (also see appendix).

³⁵ *Cí zhí* ‘resign job’ = ‘resign’ is a V-O phrase, not a V° as in Soh (2005), as evidenced by the position of aspectual verb suffixes, which must follow the verb *cí* ‘resign’, not the noun *zhí* ‘job’ (see Paul 1988 for extensive discussion):

- (i) Tā cí-le zhí(*-le) yǐhòu hěn gāoxìng.
 3SG resign-PERF job-PERF after very happy
 ‘After he had resigned, he was happy.’

By contrast, a *wh*-phrase in sentence-initial topic position is fine, provided it is construed as Discourse-linked (see Pan 2011b):

- (73) [_{TOPP} Shénme dōngxī { [_{TP} [_{VP} méi yǒu rén [_{sec.pred} PRO_i xǐhuān chī]]]/
 which thing NEG exist person like eat
 [_{TP} [_{VP} zhǐ yǒu Lǐsì [_{sec.pred} PRO_i xǐhuān chī]]]/
 only exist Lisi like eat
 [_{TP} [_{VP} hěنشǎo yǒu rén [_{sec.pred} PRO_i xǐhuān chī]]]}/
 rarely exist person like eat
 ‘(For) Which thing was there only Lisi who liked to eat/wasn’t there anybody who liked to eat/were there rarely people who liked to eat?’

Concerning example (2) from Ko (2005: 886), repeated as (74) (with my parsing and glosses), it is ruled out by the simple fact that the sequence *Zhāngsān shuō* [(*tā*/*tāmen*)_i hěنشǎo cōngmíng] cannot serve as a secondary predicate for *rén* ‘people’ or *Lǐsì*.

- (74) *{Méi you rén_i/ zhǐ yǒu Lǐsì/hěنشǎo (yǒu) rén_i}
 NEG exist person/only exist Lisi/rarely exist person
 Zhāngsān shuō (*tā*/*tāmen*)_i hěنشǎo cōngmíng.
 Zhangsan say 3SG/3PL very intelligent
 (#There wasn’t anybody/was only Lisi/there were few people who Zhangsan said s/he was intelligent/they were intelligent.)

In fact, (74) conflates several sources, each of which is responsible for the unacceptability, as shown by the comparison with the acceptable (75):

- (75) {Méi you rén_i/ zhǐ yǒu Lǐsì/hěنشǎo yǒu rén_i}
 NEG exist person/only exist Lisi/rarely exist person
 [_{sec.pred} PRO_i [_{AP} [_{PP} bǐ nǐ] [_{AP} cōngmíng]]].
 compared.with 2SG be.intelligent
 ‘There isn’t anybody/there is only Lisi who is more intelligent than you.’
 ‘There are rarely people who are more intelligent than you.’

The subject of the secondary predicate must not be overt; accordingly, enclosing the pronouns in parentheses, as Ko (2005) does in (74), is completely misleading, as their presence or absence *is* relevant to the acceptability of the sentence:

- (76) *{Méi you rén_i/ zhǐ yǒu Lǐsì/hěنشǎo yǒu rén_i}
 NEG exist person/only exist Lisi/rarely exist person
 [_{sec.pred} (*tā*/*tāmen*)_i [_{AP} [_{PP} bǐ nǐ] [_{AP} cōngmíng]]].
 3SG/3PL compared.with 2SG be.intelligent

Adding *Zhāngsān shuō* ‘Zhangsan said’ again amounts to an overt subject in the secondary predicate and leads to unacceptability:³⁶

- (77) *{Méi you rén_i/ zhǐ yǒu Lǐsì/hěنشǎo yǒu rén_i}
 NEG exist person/only exist Lisi/rarely exist person
 [_{sec.pred} Zhāngsān shuō [_{PRO_i} [_{AP} [_{PP} bǐ nǐ] [_{AP} cōngmíng]]].
 Zhangsan say compared.with 2SG be.intelligent

³⁶When *Zhāngsān shuō* is construed as an interpolation, not as a subject plus a clause-embedding verb, (77) is acceptable for some speakers: ‘There is only Lisi, so Zhangsan said, who is more intelligent than you.’

As a result, when both *Zhāngsān shuō* ‘Zhangsan said’ and the pronoun are present in the secondary predicate, the sentence is indeed completely garbled and hard to parse and interpret.

To conclude, the two ill-formed sentences (71a) (= (1)) and (74) (= (2)) can be straightforwardly explained by constraints observed for secondary predicates in general. Crucially, *no* (A-bar) movement nor intervention effects are involved here.

Let us finally turn to *hěn shǎo rén* ‘few people’ as a genuine QP in subject position and revisit the contrast in (1a–b), repeated as (78a–b) below:

- (78) a. *_{[TP [QP Hěn shǎo rén] wèishénme cí zhí?}
 very few person why resign job
- b. _{[CP Wèishénme_i [TP [QP hěn shǎo rén] t_i cí zhí?}
 why very few person resign job
 ‘Why did few people resign?’

As mentioned in footnote 5 above and presented in more detail in the appendix, Ko’s (2005) proposal neglects the well-known fact that the default position for *wèishénme* ‘why’ is TP-internal, that is, to the right of the subject, and incorrectly stipulates SpecCP as the only position available. That is the reason why Soh’s (2005) analysis is adopted here: covert feature movement of *wèishénme* ‘why’ to SpecCP in (78a) crosses the QP *hěn shǎo rén* ‘few people’ and induces an intervention effect, whereas this is not the case for overt movement of *wèishénme* ‘why’ to SpecCP in (78b).

6. CONCLUSION

Méi yǒu rén ‘there isn’t anybody’ and *zhǐ yǒu DP* ‘there is only DP’ are existential constructions, not a QP ‘nobody’ or a quantified DP ‘only DP’, respectively, so they cannot be included when testing quantifier induced intervention effects in *wh* questions.

The situation is more complex for *hěn shǎo rén* ‘few people’. Putting aside the group of native speakers who simply do not accept it, the presence of a covert existential verb *yǒu* ‘exist’ must be controlled for: *hěnnshǎo [yǒu] rén* ‘there are rarely people’. Even when a genuine QP, *hěn shǎo rén* ‘few people’ has a limited distribution, meaning that, for the majority of speakers, it is confined to the subject position. Accordingly, in syntax, *hěn shǎo rén* ‘few people’ is *not* the counterpart of its antonym *hěn duō rén* ‘many people’, which has the distribution expected for a QP, including in object position and in the complement of preposition position. Nor is this pair a good candidate to examine the semantic properties of monotone decreasing vs. increasing quantifiers within Chinese, and *a fortiori* in crosslinguistic studies, as there are too many non-semantic factors coming into play here.

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APPENDIX: THE POSITION OF WÈISHÉNME ‘WHY’ IN CHINESE AND THE INTERVENTION EFFECT

Even if always merging *why* in SpecCP, as Ko (2005) proposes for Chinese, Japanese, and Korean, might be appealing from a typological point of view, this SpecCP hypothesis has not been checked at all for the predictions it makes for Chinese syntax in general. To do this is precisely the aim of the present appendix, which offers a non-exhaustive set of arguments from Chinese invalidating this hypothesis and its consequences. Accordingly, any analysis still wanting to adopt the SpecCP hypothesis must first come to terms with these

counterarguments. Also note that Beck's (1996) Intervention Effect, which is explicitly defined as an LF condition, has been transposed by Ko (2005) to *overt* syntax as the relevant level where *why* is merged in SpecCP. Finally, the Intervention Effect itself and its implementation are not without conceptual problems (see, a.o., Grohmann 2006).

First, a uniformly high position of *wèishénme* 'why' is directly invalidated by the fact that it can occur below the well-known class of exclusively TP-internal adverbs such as *yě* 'also', *yòu* 'again', *hái* 'still', and *yīzhí* 'continuously' (see Paul 2017a for discussion and references):

- (1) a. [_{TopP} (**yě/hái/yòu/yīzhí*) [_{TP} Tā {*yě/hái/yòu/yīzhí*}
also/still/again/continuously 3SG also/still/again/continuously
[_{VP} zài jiā]].
be.at home
'He is also/still/again/continuously at home.'
- b. (**yě/hái/yòu/yīzhí*) [_{TopP} *Lìsì* (**yě/hái/yòu/yīzhí*)
also/still/again/cont. Lisi also/still/again/cont.
[_{TP} *tā* {*yě/hái/yòu/yīzhí*} zài jiā]
3SG also/still/again/cont. be.at home
'Lisi_i, he_i is also/still/again/continuously at home.'

Example (1a) should in principle suffice to demonstrate the well-known obligatory TP-internal position for these *non-movable* adverbs (see Li and Thompson 1981: 322). Example (1b) is provided as additional evidence; here the subject *tā* 'he' in SpecTP is co-referential with *Lìsì* in SpecTopP and movement of *tā* 'he' to SpecTopP, while maintaining its co-indexation with the topic DP *Lìsì*, is excluded as a possible analysis.³⁷

Against this backdrop, the examples below where *wèishénme* 'why' occurs to the right of non-movable adverbs leave no doubt as to its TP-internal position:

- (2) a. Guài le, [_{TP} Liú Èryé [_{VP} *yě* [_{VP} wèishénme dǎ diànhuà gěi wǒ]]]?
strange SFP Liu Erye also why strike phone to 1SG
'That's strange; why did Liu Erye also phone me?'
- b. Nǐ dōu sòng shǒu le, wǒ hái wèishénme yào jiānchí?
2SG all let.go hand SFP 1SG still why want insist
'You have let go my hand, so why should I still insist?'
- c. Nǐ yòu wèishénme yīdìng yào jié hūn?
2SG again why certainly want tie marriage
'Why do you nevertheless want to get absolutely married?'

³⁷These distributional facts also straightforwardly invalidate Lin's (1992) reasoning leading to SpecCP as the unique position for *wèishénme* 'why', solely motivated by his observation that *wèishénme* 'why' cannot occur *below* auxiliaries. The adverbs *yě* 'also', *yòu* 'again', and *hái* 'still' likewise cannot occur below auxiliaries, but are confined to a TP-internal position. Like all those who subsequently took up his analysis, Lin offers no independent evidence besides its general feasibility.

Wanting to maintain SpecCP as the unique position for Chinese *wèishénme* ‘why’ in order to obtain a typological feature shared by East Asian languages in general (a *desideratum* mentioned as the *major* argument against a TP-internal position of ‘why’ in Chinese by an anonymous reviewer) would mean to give up the well-established generalizations concerning the different adverb classes and their (TP-internal vs. TP-external) distribution in Chinese and the associated architecture of the clause. Importantly, it is on sentences with *wèishénme* ‘why’ in the default TP-internal position that Huang (1982) and Tsai (1994) base their LF movement account of the island and intervention effects associated with *wèishénme* ‘why’. It is not clear how these effects can be captured under Ko’s (2005) analysis. Furthermore, the linear order ‘DP *wèishénme* VP’, in general parsed as [_{TP} DP *wèishénme* VP], must now be parsed as [_{CP} DP_i *wèishénme* [_{TP} t_i VP]] (see Ko 2005: 886, (41)). Since no argument besides the principled existence of subject topicalization is offered, which moreover is string-vacuous here, at the very least both analyses are equally feasible.

Second, SpecCP as the unique position for *wèishénme* ‘why’ is likewise contradicted by its occurring below a pronoun in SpecTP, coindexed with a DP in SpecTopP:

- (3) [_{TopP} Lǐsì [_{TP} tā_i wèishénme chídào-le]]?
 Lisi 3SG why arrive.late-PERF
 ‘Lisi, why did he arrive late?’

Again, proponents of the SpecCP hypothesis would have to postulate topicalization of *tā* ‘he’ to a position above *wèishénme* ‘why’ in the left periphery (3’), a movement for which there is not the slightest evidence:

- (3’) * [_{CP} Lǐsì [_{CP} tā_i [_{CP} wèishénme [_{TP} t_i chídào-le]]]
 Lisi 3SG why arrive.late-PERF

(Ko 2005: 886 does not indicate whether the allegedly topicalized subject is adjoined to the CP hosting *wèishénme* ‘why’ or is located in another SpecCP.)

Third, the perfect acceptability of (4c), where according to Ko’s (2005) analysis, the subject *nǐmen* ‘you’ has allegedly been topicalized, is at odds with the awkwardness reported by the same native speakers for the object *nǐmen* ‘you’ in (4b), topicalized from the postverbal position. This further substantiates my claim that *wèishénme* ‘why’ can occur TP-internally, as shown in my parsing of (4c) with *nǐmen* ‘you’ in SpecTP, not in SpecTopP:

- (4) a. [_{TP} Wǒ hǎoxiàng jiàn-guo nǐmen].
 1SG apparently see-EXP 2PL
 ‘I seem to have met you before.’
 b. ?? [_{TopP} Nǐmen_i [_{TP} wǒ hǎoxiàng jiàn-guo t_i]]
 2PL 1SG apparently see-EXP
 (‘You, I seem to have met before.’)
 c. [_{TP} Nǐmen wèishénme chídào -le]]?
 2PL why arrive.late-PERF
 ‘Why have you arrived late?’

Finally, the same anonymous reviewer challenges my claim (see section 5 above, (71)–(72)) that *wh*-phrases are unacceptable in the secondary predicate when under a negated or quantified existential matrix verb *yǒu* ‘exist’. Based on a survey with 96 speakers, s/he observes that “with rich contextual information”, sentence (5) (presented as fully acceptable in Soh 2005: 147, (14)) is judged as “a bit off”, but “better” than (6), that “the contrast is a very strong one” and that “the pattern of intervention is particularly robust with ‘why’ adjuncts [...] for good reasons”:

- (5) ?{Měiyǒurén/hěnsǎorén} gēn shéi dǎjià?
 měiyǒuren/henshaoren with who fight
 ‘Who does nobody/do few people dare to fight with?’
 (Reviewer’s parsing, glosses, and translation)
- (6) * {Měiyǒurén/hěnsǎo rén} wèishénme cízhí?
 nobody/few people why resign
 (Intended: ‘Why did nobody/few people resign?’)
 (Soh 2005: 148, (17a–b) combined with Ko 2005: 883, (36a–b); their parsing, glosses, and translation; see (1a) in the main text above)

Unfortunately, no further details are provided about the context offered to speakers or about the “good reasons” for the robustness of intervention effects with ‘why’ invoked above. However, the results of an extensive discussion with Wei Haley Wei shed some light on the contrast observed; at the very least, they indicate the questions to be pursued and the factors to be controlled for.

First, (5) (repeated as (5’) below), is acceptable *only* as an echo question (which probably explains the divergence of judgements between Soh (2005) and the participants in the reviewer’s survey). No echo question interpretation is possible for (6) (repeated as (6’)) – hence its unacceptability:

- (5’) {Měi yǒu rén/ hěnsǎo yǒu rén} [PP gēn shéi] dǎ jià?
 NEG exist person/rarely exist person with who strike fight
 ‘There isn’t anybody/there are rarely people who fight with WHOM?’
 (my parsing, glosses, and translation)
- (6’) *_[matrix TP] _[VP] {Měi you rén/ hěnsǎo (yǒu) rén;}
 NEG exist person/rarely exist person
_{[sec.pred PRO_i wèishénme cí zhí]]?}
 why resign job
 (my parsing and glosses; see (71a) in the main text above)

However, provided a context and sentence (7a) are given, (7b) with the *wh*-PP *wèi shénme* ‘for what’ (marginally) allows for an echo question that bears on the nominal *wh* ‘what’, on par with the PP *gēn shéi* ‘with whom’ in (5’) above.

Context: Lisi resigned, because the company didn’t give free mooncakes.

- (7) a. Wǒ tīngshuō-guò [_{PP} wèi [gè zhǒng fúli] cí zhí de],
 1SG hearsay-EXP for each kind benefit resign job DE
 kěshì méi yǒu rén [_{sec.pred} PRO_i [_{PP} wèi yuèbǐng] cí zhí].
 but NEG exist person for mooncake resign job

‘I’ve heard people resign for various benefits, but there isn’t anybody who would resign for mooncakes.’

- b. Méi yǒu rén [_{sec.pred} PRO_i [_{PP} wèi shénme] cí zhí]³⁸
 NEG exist person for what resign job
 ‘There isn’t anybody who would resign for WHAT?’

This is confirmed by the fact that ‘why’ echo questions in general use the PP *yīnwèi shénme* ‘because of what’, asking to fill in the content for the *wh*-nominal *shénme* ‘what’ (8b):

- (8) a. Yǒu rén [_{sec.pred}PRO_i [_{PP} yīnwèi [_{TP} gōngzī bù gāo]] cí zhí]
 exist person because salary NEG high resign job
 kěshì méi yǒu rén
 but NEG exist person
 [_{sec.pred} PRO_i [_{PP} yīnwèi [_{TP} lǎobǎn zhǎng de bù hǎokàn]] cí zhí.
 because boss grow DE NEG pretty resign job
 ‘There are people who resign because the salary is not high, but there isn’t anybody who resigns because the boss is not good-looking.’
- b. Méi yǒu rén [_{sec.pred} PRO_i [_{PP} yīnwèi shénme] cí zhí]?
 NEG exist person because what resign job
 ‘There isn’t anybody who would resign because of WHAT?’

All these data invalidate Ko’s (2005) intervention approach that crucially relies on SpecCP as unique position for *wèishénme* ‘why’.

³⁸The echo question is more easily available for *wèile shénme* ‘for what’ (with the preposition *wèile* ‘for’ instead of *wèi* ‘for’), which has a unique parsing as PP and cannot be parsed as one word, *wèishénme* ‘why’ (Xie Zhiguo, p.c.).