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Chinese Syntax in a Cross-Linguistic Perspective

EDITED BY AUDREY LI

ANDREW SIMPSON

and

WEI-TIEN DYLAN TSAI

Verbal Answers to Yes/No Questions, Focus, and Ellipsis

ANDREW SIMPSON

1. Introduction

Law (2006) considers A-not-A questions in Mandarin Chinese and argues convincingly that there is movement of a null operator ("an abstract Q feature") from a low clausal position in the derivation of such questions, building on much previous work on A-not-A questions and locality restrictions (Huang 1982, 1991; Aoun and Li 1989; Ernst 1994). The key novel evidence for such an analysis presented by Law is the patterning of adverbs in A-not-A questions. It is suggested that the frequent unacceptability of adverbials in A-not-A questions is due to the creation of an intervention effect on the output of LF movement of the A-not-A operator from its base position adjoined to VP, bringing it to the C-domain (SpecCP). Law notes that A-not-A questions contrast in this patterning with English yes/no questions, and also with other Mandarin yes/no questions formed with the particle *ma*, which are not ungrammatical when the same kinds of adverbial elements occur that cause unacceptability in A-not-A questions. Law suggests that this naturally leads to the conclusion that there is no operator movement in English yes/no questions and Mandarin *ma* questions, and that in these question forms the interrogative operative is directly base-generated in the C-domain.

Taking Law's interesting work on A-not-A and *ma* questions as its starting point, this chapter develops the claim that movement-related locality effects actually do occur with the use of Mandarin *ma* particle questions, but that these can critically only be detected (and indeed only occur) in the answer-forms to such questions, not in the questions themselves. As in Law's study, the present chapter focuses on the potential occurrence of adverbs of various types in yes-no questions, and shows that the presence of adverbial elements in *ma* questions constrains the ways that such questions can be answered, frequently rendering unacceptable a bare verbal answer-form and requiring instead the use of an alternative answer-form similar to English 'yes' or 'correct.' The potential employment of a bare verb as an affirmative answer-form in Mandarin will be attributed to a process of movement and ellipsis, as argued at length in Holmberg (2001, 2007) for Finnish, this movement being affected by the presence

of adverbials in a way similar to, but not identical with, the occurrence of adverbs in A-not-A questions.¹ The common availability of an alternative, non-movement answer strategy—the base-generation of a 'yes'-type particle in the C-domain—will be suggested to avoid and mask the intervention effect that would otherwise arise with movement of the verb in the presence of certain adverbials. In addition to highlighting parallels between Mandarin and Finnish in the way that yes/no questions may be answered, the chapter also uses the conclusions drawn from Mandarin to examine verb-related question-answer patterns in two other East/Southeast Asian languages—Korean and Vietnamese—and shows that insights gained from a consideration of adverbs and focus/background distinctions in Mandarin yes-no questions seem to be mirrored to a considerable extent in other languages of the region, though with certain interesting and revealing variation in the options taken up by these other languages in their affirmative short answer forms.

The structure of the chapter is as follows. Section 2 presents Law's (2006) analysis of the derivation of A-not-A questions as motivated by the patterning of adverbs, and shows how patterns found in *ma* particle questions are different, resulting in a non-movement analysis of *ma* yes-no questions. Section 3 discusses the ways that both types of yes/no questions may be answered in the affirmative in Chinese, via simple repetition of the verb, or by means of a particle approximating English 'yes/correct.' Section 3 also notes the ways that A-not-A and *ma* questions are commonly assumed to differ with regard to the speaker's assumptions about possible answers values—whether a yes-no question is 'open' or the speaker is predisposed to expect an answer of a certain polarity, and how the two common ways of answering yes-no questions may be affected by the speaker's expectations about the type of answer that may be given. Section 4 then outlines two possible approaches to the modeling of affirmative answer forms, which consist in a simple repetition of the verb, a non-movement analysis making use of null subjects and objects, and a verb-movement and constituent/clausal ellipsis analysis, as argued for Finnish in Holmberg (2001, 2007). It is noted that the two analyses may potentially be distinguished by re-examining *ma* yes-no questions containing adverbs, and how such questions can be answered. Various complications arising from interactions with focus, and differences between broad and narrow focus questions are discussed, which need to carefully be controlled for in any examination of questions containing adverbs. Once this is done, it is argued that the patterns observed support a movement and ellipsis analysis of verbal answers in Chinese, as in Finnish. Section 5 subsequently builds on the investigation of Chinese and extends the coverage of verbal answer forms to Korean and Vietnamese, and shows that there are both strong similarities in the patterning of yes-no questions

¹ On the basis of constraints on the use of null subjects in certain polarity conditions, Holmberg (2007) suggests that a range of other languages may also make use of verb movement to create affirmative verbal answers. The patterns presented in this chapter approach this possibility from a different angle, and generally support the view that movement of some kind may be involved in affirmative answers that do not consist simply in a 'yes'-type particle. It remains to be seen whether the set of languages conjectured by Holmberg to be verb-movement languages on the basis of null subject patterns are the same as those for which adverbial patterns support an analysis of verb-movement in answer-forms.

with adverbials, and also interesting differences in the ways such questions may be answered. Certain related patterns in focused answer-forms to yes-no questions English also are presented and are shown to link up in an intriguing way with the general phenomenon under consideration. Section 6 presents the conclusions of the chapter.

2. Law (2006): A-Not-A Questions, *ma* Questions, and Adverbs

Law (2006) notes that A-not-A questions in Chinese show a clear contrast with yes-no questions in English in the ability for adverbs of various types to occur within such questions. Whereas frequency and manner and many other types of adverbs may licitly occur in English yes-no questions, their presence in A-not-A questions results in unacceptability, as illustrated in (1–4):

- (1) Is John attentively reading the book?
- (2) Did John often dance?
- (3) *Zhangsan xiaoxin-de kan-bu-kan shu?
Zhangsan carefully read-not-read book
Intended: 'Is Zhangsan carefully reading books?'
- (4) *Zhangsan changchang tiao-bu-tiaowu?
Zhangsan often dance-not-dance
Intended: 'Does Zhangsan often dance?'

Law proposes to account for the Chinese-English difference in such patterns with the suggestion that in Chinese A-not-A questions an abstract [+Q] feature is base-generated adjoined to VP, and undergoes movement to SpecCP, whereas in English the +Q feature is base-generated in C. In A-not-A questions, the movement of Q to SpecCP is suggested to give rise to an antecedent-trace relation subject to general locality constraints on variable binding (antecedent-government), which may be blocked by the intervening structural presence of adverbs of a range of types: manner, degree, agent-oriented, subject-oriented, instrumental, aspectual, frequency, epistemic, and modal adverbs.² As movement of the Q feature does not need to occur in English, where Q is inserted directly in C, no Relativized Minimality intervention effect occurs when adverbs are present in yes-no questions.

Law also notes that *ma* particle yes-no questions in Mandarin seem to pattern like English yes-no questions and tolerate the presence of adverbs that cause unacceptability in A-not-A questions, as shown in (5–8), which contrast *ma* questions with parallel A-not-A questions:

- (5) ta luan pao ma?
he chaotically run Q
'Did he run all over the place?'
- (6) *ta luan pao-bu-pao?
he chaotically run-not-run
Intended: 'Does he run all over the place?'
- (7) laoban yanli-de zebei ta ma?
boss sternly accuse him Q
'Did the boss sternly accuse him?'
- (8) *laoban yanli-de ze-bu-zebei ta?
boss sternly accuse-not-accuse him
Intended: 'Does the boss sternly accuse him?'

Law suggests that *ma* is an overt realization of the Q feature and that it is base-generated in C, just as the Q feature in English is argued to be base-generated directly in C. Due to the hypothesized lack of Q-movement in *ma* questions, adverbs of all types are free to occur in such questions and do not give rise to any Relativized Minimality intervention effects.

Law's account of adverbial patterns in A-not-A questions, English yes-no questions, and *ma* particle questions is both coherent and highly plausible, and seems to indicate that operator movement is only to be found in the derivation of A-not-A questions. As noted in the introduction, however, this chapter will argue that a common way of answering yes-no questions formed with the *ma* particle also results from a movement strategy and is constrained by focus-related intervention effects. In order to begin considering the potential role of adverbs in the ways that yes-no questions can be answered, section 3 will now provide some relevant background to the ways that yes-no questions in Chinese are regularly answered, and a difference assumed to exist between A-not-A and *ma* particle questions concerning the kind of answer that is anticipated to occur.

3. Answer-Forms to Yes-No Questions in Chinese

Li and Thompson (1989) note that yes-no questions in Chinese formed by the A-not-A strategy and the particle *ma* show a differing sensitivity to the context in which a yes-no question occurs, as described here:

The A-not-A question is used only in a *neutral context*, whereas the particle-question may be used in a *neutral* or a *non-neutral context*. A neutral context is one in which the questioner has no assumptions concerning the proposition that is being questioned and wishes to know whether it is true. Whenever the questioner brings to the speech situation an assumption about either the truth or the falsity of the proposition s/he is asking about, then that context is non-neutral with respect to that question. (Li and Thompson 1989: 550)

² All those adverbial types that cause unacceptability in A-not-A questions are suggested to have tight syntactic or semantic connections with the predicate or proposition. Certain other adverb types, specifically locative, temporal, domain, and speaker/hearer-oriented adverbs, are argued not to have similar connections with the predicate or proposition, and are noted not to cause unacceptability in A-not-A questions (see Law (2006 for further discussion).

In a neutral context, both A-not-A and *ma* particle questions may consequently be used, as for example in (9):

- (9) a. ni hao ma? b. ni hao-bu-hao?
 you good Q you good-not-good
 'How are you?' 'How are you?' (Li and Thompson 1989)

However, in a situation where the speaker has a particular expectation concerning the truth or falsity of the proposition being questioned, only a *ma* particle question can appropriately be used, as illustrated in (10) from Li and Thompson (1989: 553). The context relating to (10) is that the speaker sees that the hearer has returned, and hence expects that the answer to his/her question will be affirmative:

- (10) a. ou ni yijing hui-lai le ma?
 oh you already return-come ASP Q
 'Oh, did you get back already?'
 b. #ou ni yijing hui-lai le meiyou?
 oh you already return-come ASP not

Turning now to consider the ways that yes-no questions can be answered, both A-not-A and *ma* particle questions can be answered in the affirmative with a simple repetition of the verb, as in (11) and (12):

- (11) a. ni xihuan riben cai ma? b. xihuan
 you like Japanese food Q like
 'Do you like Japanese food?' 'Yes.'
 (12) a. ni xi-bu-xihuan riben cai? b. xihuan
 you like-not-like Japanese food like
 'Do you like Japanese food?' 'Yes.'

Questions formed with *ma*, but not A-not-A questions, can in principle also be answered in the affirmative with the elements *dui* and *shi-de*, as illustrated in (13) and (14):

- (13) a. ni xi-yan ma? b. dui/shi-de c. xi
 you smoke Q yes smoke
 'Do you smoke?' 'Yes.' 'Yes.'
 (14) a. ta neng Shuo zhongwen ma? b. dui/shi-de c. neng
 he can speak Chinese Q yes can
 'Can he speak Chinese?' 'Yes.' 'Yes.'

The particular focus of this chapter will be on attempting to understand how the former, verb-repetition-type answer forms are syntactically derived. In investigating such an answer strategy, we will also compare the availability of verb repetition with the use of *dui* as an answer-form, and consider what differences in the distribution of verbal and *dui* answers may reveal about the underlying syntax of such elements.

With regard to the use of a repeated verb as an affirmative answer to a yes-no question, there are two quite different hypotheses that can be formed as possible modes of analysis, one attributing the phenomenon of verbal answers to the general occurrence of null arguments in Chinese, the other positing an operation of movement and ellipsis, as will be examined in section 4.

4. Investigating the Syntax of Verbal Answers to Yes-No Questions

One quite natural approach to the occurrence of affirmative verbal answers in Chinese and also other East and Southeast Asian languages, such as Korean and Vietnamese, is to suggest that such forms are simply regular sentences in which the subjects and objects of verbs are left phonetically null, as elsewhere in Chinese, Korean, Japanese and other similar languages, under appropriate discourse conditions. Null subjects and objects are common in East and Southeast Asian languages and have been variously analyzed as instances of *pro*, operator-bound traces, or True Empty Categories/TEC (e.g., Huang 1984, 1987; Li 2007; Aoun and Li 2008). In such an approach, as illustrated in (15) (with 'ec' being used to represent the null arguments present), the repetition of a verb as an affirmative answer to a yes-no question would not instantiate any different kind of syntactic process or structure from that occurring in regular declarative sentences that are not necessarily answers to yes-no questions. The frequent occurrence of verbal answers in East and Southeast Asian languages would then simply be a function of the general widespread presence of null arguments in languages of this geographical area.

- (15) a. ni mai-le shu le meiyou?
 you buy-ASP book ASP not
 'Did you buy the book?'
 b. ec mai-le ec
 buy-ASP
 'Yes.'

A second potential analysis that may suggest itself for other cross-linguistic reasons, however, is the possibility that verbal answers in Chinese and other East and Southeast Asian languages actually result from a process of verb-movement and ellipsis as has been well-motivated for Finnish by Holmberg (2001, 2007), and also assumed for various other languages such as Welsh and Polish. Example (16) is an illustration of a question-answer pair from Finnish. Holmberg points out that a movement and ellipsis analysis is strongly suggested by two patterns found in such pairs of sentences. First, the verb in Finnish is clearly raised to the initial position of the question and attaches the Q-morpheme, which may be assumed to be in C. This creates a structure in which the clausal complement of C could naturally be elided, deleting the subject and object and resulting in the verbal answer form found in (16b). Second, such an analysis is supported by the observation that third person subjects normally cannot be phonetically null in other environments in Finnish; hence some

special process of deletion seems to operate in the answers to yes/no questions in Finnish, allowing for the subject to be missing. Additionally, it can be noted that an alternative answer-form to simple bare repetition of the verb, as in (16b), involves overt repetition of the subject and the object (sometimes pronominalized), and in such sequences the verb still occurs in a clause-initial position, indicating that there is raising of the verb in answer-forms, as in questions, regardless of whether the arguments of the verb are phonetically realized or not.

- (16) a. Puhuuko Joni ranskaa? b: Puhuu.
 speaks-Q John French speaks
 'Does John speak French?' 'Yes.' (Holmberg (2007))

The derivation of verbal answers assumed to occur in Finnish is schematized in (17). First the verb (or possibly a remnant VP containing just the verb) raises to the C-domain, where the Q morpheme *-ko* is located, and then the constituent containing the subject and object is elided, as represented with strikethrough in (17b):³

- (17) a. verb_k-ko [subject ~~verb_k~~ object] → b. verb_k-ko [~~subject verb_k object~~]

Given the good arguments for such an analysis of verbal answers in Finnish (and also for Welsh), this raises the theoretical possibility that a similar process of movement and ellipsis might perhaps be responsible for the occurrence of verbal answers in Chinese and other East and Southeast Asian languages as well. However, it has to be noted that Finnish and Welsh are languages that very clearly display instances of verb-movement to clause-initial positions in questions and other structures, whereas Chinese and other East and Southeast Asian languages do not independently exhibit clear instances of verb-movement to high clausal positions. It is therefore natural to ask whether there would be any plausible grounds to posit such movement specifically in the answers to yes-no questions?⁴

While it may not be easy to decide what the correct analysis of verbal answers in Chinese should be when attention is confined to question-answer pairs involving just subjects, verbs, and objects, the two potential approaches outlined above can be argued to make different predictions when other elements are built into question-forms such as adverbials and other adjuncts. An important feature of the verb movement approach to verbal answers is that its derivation involves the ellipsis of a

³ The full mechanics of the movement and deletion process argued by Holmberg (2001, 2007) to occur in Finnish are actually more complex than the representation in (17), and may involve other movements within the constituent following the verb which is ultimately deleted. However, (17) provides a useful approximation of the kind of movement and deletion process that is assumed to underlie verbal answers in Finnish and Welsh.

⁴ With head-final languages such as Japanese and Korean, arguments for string vacuous verb-movement to a clause-final C position are hard to construct, but it is also less easy to completely dismiss the possibility that there is overt verb-movement in these languages than in SVO languages such as Chinese, Thai, and Vietnamese, where it is clear that the verb does not raise over subjects to the C-domain in regular questions or declaratives. For a review of issues bearing on verb-movement in Korean and Japanese, see Han, Lidz and Musolino (2007).

constituent containing the subject and the object of the verb, hence hypothetically a TP-level constituent that could also contain various other adverbial elements. It might therefore be expected that it would be possible, at least in principle, for a bare verb to occur as the affirmative answer to a yes-no question in which adverbs and other adjuncts projected within TP are present, and that a bare verbal answer would affirm the full proposition under question, including the content of any adverbs and adjuncts projected in the TP in the question input.

Considering what an alternative non-movement approach to verbal answers might expect in similar circumstances, in order for an element in a yes-no question to be interpreted as part of the answer to the question consisting in simply a repetition of the verb, it has to be assumed to occur as a phonetically null *pro*/TEC-type equivalent to an overt element in the question. Hence, in such an approach, the subject position in a verbal answer would be occupied by a *pro*, and the object position by a TEC in Li's (2007) and Aoun and Li's (2008) approach. Were it to be possible for an adverb or other adjunct in a yes-no question to be interpreted as present in a simple verbal answer to such a question, it would need to be assumed that the adverb/adjunct would also be syntactically present in the form of a *pro* element or TEC. However, the distribution of *pro*-type elements (and TECs) in syntactic positions is commonly taken to be highly limited and restricted, at most, to just (nominal) arguments of verbs, not other adjuncts, PPs, and adverbial categories. Such a position is argued for at some length in Aoun and Li (2008), and is widely held elsewhere in the literature, following observations in many languages that null pronominal PPs and other adjuncts do not appear to be available in structures that otherwise permit null arguments to occur. For example, a DP in initial topic position can relate to a subject position inside an island structure because a *pro* can occupy such a position, allowing for the DP to be base-generated in the initial topic position and not occur there as a result of movement, which would cause a violation of Subjacency/the CED and cause ungrammaticality, as illustrated in (18) and (19), from Huang, Li, and Li (2009: 209). However, it is not possible for PPs or other adjuncts to occur in a similar initial topic position and relate to positions within islands, indicating that there are no parallel phonetically null *pro*-forms available to resume such elements. (20) illustrates a legitimate instance of PP topicalization via movement. (21) shows that a PP cannot be construed as modifying a predicate within an island, because movement of the PP out of the island to topic position would violate Subjacency/the CED, and there is no *pro*-PP available to serve as a resumptive element within the island, unlike the situation with subject DPs.⁵

- (18) Lisi, [yinwei *pro* piping-le Zhangsan], (suoyi) meiren yao ta.
 Lisi because criticize-ASP Zhangsan therefore nobody want him
 '(As for) Lisi, because (he) criticized Zhangsan, nobody wants him.'

- (19) Zhangsan, [[*pro* xihuan de] ren] hen duo.
 Zhangsan like DE person very many
 '(As for) Zhangsan, the people who (he) likes are many.'

⁵ For similar observations about Japanese, see Saito (1985).

- (20) a. Zhangsan qunian qu Beijing liu-xue.
Zhangsan last-year go Beijing study-abroad
'Last year Zhangsan went to Beijing to study.'
- b. Zai Beijing-ne, Lisi shuo Zhangsan pengdao-le yi-ge lao pengyou.
in Beijing-TOP Lisi say Zhangsan meet-ASP 1-CL old friend
'Lisi said [that Zhangsan met an old friend in Beijing].'
- (21) a. Zhangsan qunian qu Beijing liu-xue.
Zhangsan last-year go Beijing study-abroad
Last year Zhangsan went to Beijing to study.
- b. Zai Beijing-ne, Zhangsan mai-le [yi-ben Lu Xun xie de shu]
in Beijing-TOP Zhangsan buy-ASP 1-CL Lu Xun write DE book
Meaning that is intended but not possible:
'Zhangsan bought [a book that Lu Xun wrote in Beijing].'
Only possible meaning:
'Zhangsan bought [a book that Lu Xun wrote] in Beijing.'

Additionally, Aoun and Li (2008) show that there is an argument/adjunct asymmetry in the so-called Verb Construction illustrated in (22)–(24), which indicates that null adjuncts/adverbs are not available in the way that null arguments are. When the object of the verb and an adjunct/adverbial are omitted in pairs of sentences that differ in the identity of the subject, as in (22)–(24), the object is naturally understood as being present in the second sentence, but the adjunct/adverbial is not. Hence the interpretation of the frequency, duration, and manner adverbials in the first sentences of (22)–(24) is not understood as being present in the follow-on sentences, as captured in the English translations provided. This pattern of behavior is argued to distinguish the Verb Construction from cases of Aux-stranding VP ellipsis and the *shi* construction in Chinese, illustrated with (25)–(27), where the interpretation of similar omitted adverbials is indeed understood, as in English (in addition to that of the missing/elided verb and its object).

- (22) a. wo jian-guo ta san ci le. b. tamen ye jian-guo le.
I meet-ASP him 3 time ASP they also meet-ASP ASP
'I have met him three times.' 'They have met him too.'
- (23) a. wo renshi ta hen jiu le. b. wo baba ye renshi.
I know him very long ASP my father also know
'I have known him for a long time.' 'My father also knows him.'
- (24) a. ta (nian) na-ben shu nian-de hen kuai. b. wo ye nian le
he read that-CL book read-DE very quick I also read ASP
'He read that book very quickly.' 'I also read it.'
- (25) a. wo yao tanwang ta san-ci. b. tamen ye yao.
I want visit him 3-time they also want
'I want to visit him three times.' 'They do too (want to visit him three times).'
- (26) a. wo hui renzhende zuo gongke. b. ta ye hui.
I will diligently do homework he also will
'I will diligently do homework.' 'He also will (diligently do his homework).'

- (27) a. wo tanwang ta san-ci le. b. tamen ye shi.
I visit him 3-time ASP they also BE
'I visited him three times.' 'They also did (visited him three times).'

If phonetically null pro-forms for adverbs, PPs, and other adjuncts were available and could be syntactically projected in a way similar to null arguments, it would be expected that they could be interpreted as present in examples such as (22)–(24), but this is not the case. This again indicates that it is just arguments (subjects and objects) that may be licensed to occur as phonetically null base-generated elements, not adverbs or other adjuncts.

Summarizing now the differing predictions of the two approaches to the analysis of verbal answer forms, the hypothesis that verbal answers may result from movement of the verb and deletion of the remnant constituent containing the subject, object, and other TP-internal material creates the expectation that adverbs, PPs, and other adjuncts could be phonetically elided along with other TP-internal material, and could be interpreted as present in the answer form, just as the subject and object of the verb are interpreted as syntactically present and understood in the verbal answer. The analysis of verbal answers as resulting from the use of null subjects and objects (whether pro, topic-bound variable, or TECs) and no movement and deletion strategy does not expect that adverbs and other adjuncts present in a yes-no question input would be interpreted as being syntactically present and understood in a bare verbal answer-form, as phonetically null adverbs and null adjuncts are otherwise not licensed to occur, unlike subject and object arguments of the verb, which may sometimes be licensed to occur as phonetically null elements.

The question that now needs to be answered is whether adverbs and other adjuncts first of all can occur in yes/no question forms that might allow for verbal answer forms, and second, whether such answer forms may be understood as affirming the content of the adjuncts as well as that of the understood subject and object of the verb. In fact, we have already seen and noted in section 2 (examples 5 and 7) that adverbs do seem to be able to occur in *ma* particle yes-no questions, as has been pointed out by Law (2006). We therefore need to verify whether verbal answers may occur with such questions and project the interpretation of the adverb in the question.

So, what are the results of investigating how *ma* particle questions containing adverbs may be answered? Interestingly and intriguingly, they are mixed, and sometimes it is found that a verbal answer may indeed occur and convey the interpretation of the adverb in the input question, but other times it appears that verbal answers are actually not possible as answers responding to questions containing adverbs, where the content of the adverb is also naturally being questioned and in need of confirmation or denial in the answer-form. It will be argued that the variable kinds of patterns found are in fact quite systematic and revealing, pointing to an analysis of focus-sensitive verb-movement and remnant deletion, and that the variability of the answer-form patterns in Chinese is interestingly replicated in other languages in a very similar way, suggesting the generalization of the verb-movement analysis to other languages as well, with certain parametric variation relating to additional options that languages allow for answering yes-no questions containing a narrowly focused constituent.

First, it can be noted that Aoun and Li (2008) do in fact present examples showing that *ma* particle yes-no questions containing adverbs may be answered in the affirmative with a repetition of the verb, and the answer form is understood as containing the referential content of the adverb, as illustrated in (28) and (29). In (28), Aoun and Li note that the verbal-answer is interpreted as confirming that the speaker met the person being referred to three times, hence the frequency adverbial in the question is understood in the answer-form consisting of just a repetition of the verb. In (29), the content of the manner adverbial in the question input is similarly understood as being confirmed in the affirmative verbal answer.

- (28) a. ni jian-guo ta san-ci ma? b. jian-guo
you meet-ASP him 3-time Q meet-ASP
'Did you meet him three times?' 'Yes.'

- (29) a. ta hen renzhende zuo-le gongke ma? b. zuo-le.
he very diligently do-ASP homework Q do-ASP
'Did he do the homework very diligently?' 'Yes.'

To such examples, we can add a range of further instances where verbal answers may be used to reply in the affirmative to *ma* particle questions containing adverbial elements and adjunct PPs, and the latter are understood as being confirmed as part of the answer.

Manner

- (30) Context: Asking about a patient in a hospital.
a. yisheng zixide kan-le bingren ma? b. kan-le.
doctor Carefully look-ASP patient Q look-ASP
'Did the doctor carefully examine the patient?' 'Yes.'
- (31) Context: A gangster-boss has just found out that one of his gang is a police informant.
a. heibanlaoda yongli da-le ta ma? b. da-le.
gangster-boss Severely beat-ASP him Q beat-ASP
'Did the gangster-boss severely beat him?' 'Yes.'

Frequency

- (32) Context: Helping someone sort out a problem with a computer.
a. ni an-le liang-ci le ma? b. an-le.
you press-ASP two-time ASP Q press-ASP
'Did you click (on the mouse) twice?' 'Yes.'

Duration

- (33) Context: Asking whether someone has prepared food according to the instructions given to him.
a. ni (shi-bu-shi) zhao wo shuo-de rou yan-le san-ge-xiaoshi ma?
you be-not-be according I say DE meat marinate-ASP 3-CL-hour Q
'Did you marinate the meat for three hours, as I told you to?'
- b. yan-le.
marinate-ASP
'Yes.'

- (34) Context: Doctor asks patient to confirm he has taken medicine as instructed.
a. ni zhao wo shuo-de yao chi-le san tian le ma?
You according I say DE medicine eat-ASP 3 day ASP Q
'Did you take the medicine for three days, as I told you to?'
- b. chi-le.
eat-ASP
'Yes.'

Location

- (35) Context: At a Christmas party for faculty, staff, and students of USC, the speaker tries to ascertain whether someone he meets is a member of staff, a student, or a member of the faculty.
a. ni zai USC jiaoshu ma? b. jiaoshu.
you in USC teach Q teach
'Do you teach in USC?' 'Yes.'

Agentive

- (36) a. ta guyi pian-guo ni ma? b. pian-guo.
he deliberately cheat-ASP you Q cheat-ASP
'Did he deliberately cheat you?' 'Yes.'

Comitative

- (37) Context: The speaker asks the hearer about going to a funeral.
a. ni zuotian gen ni taitai qu canjia Zhangsan-de zangli ma?
you yesterday with your wife go attend Zhangsan-DE funeral Q
'Did you go to Zhangsan's funeral with your wife yesterday?'
- b. qu-le.
go-ASP
'Yes.'

Source

- (38) Context: The speaker asks about the scheduled departure of a plane from Los Angeles, which didn't yet arrive at its destination, San Francisco.
a. feiji cong luoshanji qifei-le ma? b. qifei-le.
plane from L.A. take-off-ASP Q take-off-ASP
'Did the plane take off from L.A.?' 'Yes.'

Despite the acceptability of (28)–(38), in other instances it is not uncommon to find that speakers reject the possibility of using a verbal answer to a *ma* question containing an adverbial or other adjunct, as illustrated in the following examples, where the attempted use of a verbal answer is felt not to answer the question appropriately, as it merely affirms the content of the verb and its arguments, and not the content of the adverbial present in the question.

Frequency

- (39) a. Zhangsan changchang tiaowu ma? b. *tiaowu
Zhangsan often dance Q dance
'Does Zhangsan often dance?' Intended: 'Yes (he dances often).'

- (40) a. ni meitian dou gua huzi ma? b. *gua (huzi)
 You every day shave beard Q shave (beard)
 'Do you shave every day?' Intended: 'Yes.'

Duration

- (41) a. ni deng-le hen jiu le ma? b. *deng-le
 you wait-ASP very long ASP Q wait-ASP
 'Have you been waiting for long?' Intended: 'Yes.'

Manner

- (42) a. laoban yanlide zebei ta ma? b. *zebei.
 boss severely scold him Q scold
 'Does his boss scold him severely?' Intended: 'Yes.'

Location

- (43) a. zhei-ge chenshan, ni zai xiaweiyi mai-de ma?
 this-CL shirt you in Hawaii buy-DE Q
 'Did you buy this shirt in Hawaii?'
 b. *mai-de/-le.
 buy-DE/-ASP
 Intended: 'Yes.'

Source

- (44) a. ta cong Beijing lai ma? b. *lai.
 he from Beijing come Q come
 'Is he coming from Beijing?' Intended: 'Yes.'

Means

- (45) a. ni zuo huoche lai de ma? b. *lai-de.
 you by train come DE Q come-DE
 'Did you come by train?' Intended: 'Yes.'

Aspectual adverb

- (46) a. ta hai xi yan ma? b. *xi.
 he still inhale smoke Q inhale
 'Does he still smoke?' Intended: 'Yes.'

So, it is natural to ask what is going on in this apparently contradictory set of patterns. In certain instances it is clearly possible to use a repetition of the verb as an affirmative answer to a *ma* particle yes-no question, whereas in other instances such a strategy is not acceptable. Shortly, it will be argued that there are in fact systematic reasons why certain occurrences of verbal answers are well-formed and others are not acceptable, and that such variation is dictated by the interaction of the underlying syntax of answers to *ma* particle yes-no questions and the particular information structure of the yes-no question that serves as input to the answer form.

First of all, it can be noted and emphasized that the fact that verbal answers may occur as legitimate affirmative responses to yes-no questions containing adverbs or other adjuncts in *any* instances (and convey the interpretation of the adverb/adjunct

as part of the affirmed event/state) is quite unexpected for an approach to verbal answers which assumes that these arise simply through the use of the verb accompanied by null subjects and objects, as noted earlier, as null pro-forms of adverbs/adjuncts do not seem to be available cross-linguistically. The interpretation of verbal answers to questions such as those in (28)–(38) is consequently not anticipated to be able to convey the interpretation of the adverbial elements in a base-generated, pro-form approach to bare verb answer forms, contra what is observed. Such interpretations are, however, expected to be at least a theoretical possibility in the verb movement and remnant deletion approach to verbal answers, as this hypothesizes the ellipsis and LF recovery of all material in TP-level constituents that contain the subject and the object, including adverbial elements. The patterns in (28)–(38) thus provide clear and strong support for the latter movement and ellipsis analysis over the pro-form base-generation approach to verbal answers, and it can be suggested that the availability of verbal answers conveying the content of adverbs in the input question arises, wherever possible, as the result of movement of the verb to a higher-clausal position allowing deletion of a lower constituent containing the subject, object, adverbs, and other adjuncts. All such elements being syntactically present but phonetically elided will automatically be interpreted as part of the affirmed answer.

Attempting to account for the challenging, observed variation in the acceptable use of verbal answers to *ma* questions containing adverbs/adjuncts and the fact that bare verbal answers are in many instances not legitimate answer-forms, the adoption of a verb movement and ellipsis analysis of verbal answers would now seem to suggest that some property of yes-no questions such as (39)–(46) has the effect of blocking the hypothesized syntactic derivation of such answer-forms and the movement of the verb necessary to create the remnant clausal ellipsis. The question then is whether it is possible to identify any relevant, shared property in questions such as (39)–(46) that plausibly might interfere with the syntactic creation of bare verbal answer forms? Considering the range of patterns in (39)–(46) and other similar data, it can be suggested that there is indeed such a property, linking up the questions in (39)–(46) and distinguishing them from (28)–(38), and that this relates to a frequent interpretive effect that arises with the use of adverbs and other non-obligatory modifiers in question forms. In many instances, when additional, non-argumental material is explicitly added into questions, it often seems to have the effect of drawing specific attention to that material, with the result that an adverbial element may be naturally interpreted as the narrow focus of a question, in the absence of any other contextual information. Consider the English examples in (47)–(49), as illustrations of this interpretive effect:

- (47) Did you read the book quickly?
 (48) Do you grade the exams carefully?
 (49) Did you buy that shirt in Hawaii?

Presented out of any special context, it is most natural to interpret (47)–(49) as asking specifically for confirmation of the content of the adverb in (47)–(48) and

the location PP in (49), and such questions seem appropriate and natural in situations in which the event or habitual action described by the predicate is assumed to have occurred (or to occur regularly), and hence the speaker is not seeking confirmation of the content of the event/habitual occurrence, but of the adverbial modifier. (47) is most naturally uttered in a situation in which the speaker knows that the hearer has read a particular book, and simply wants to know whether this reading event was achieved swiftly. Similarly, (48) is most naturally felicitous in a situation in which the speaker knows that hearer regularly grades exams and wishes to confirm whether the hearer is careful in his/her grading. Example (49) also seems most easily appropriate as a question in a situation where the speaker assumes that the purchase of a shirt present in the discourse situation has taken place, and the speaker is hoping to confirm whether this purchasing act occurred in Hawaii. It would seem that there is frequently a natural tendency for adverbs added into yes-no questions to give rise to interpretations of narrow focus, and cause such questions to effectively be construed and used as constituent questions, assuming the content of the main predicate as given, and requesting confirmation or denial of the interpretative value of the adverb as a modifier of the event being referred to. This property of constituent focus is one that can be argued to be critically present with adverbial elements in questions which do not naturally allow for bare verbal answers, such as those in examples (39)–(46). Here it can be suggested that the speaker is most naturally taken to assume the content of the main predicate to be true, and to be asking specifically for confirmation of whether the action occurs in an adverb-type way. For example, it might seem odd for a speaker to ask (39a) in a situation in which s/he had no idea whether the subject, Zhangsan, went dancing with some frequency; question (40a) naturally comes with an assumption that the hearer shaves with some regularity, and asks whether this is in fact a daily activity; and (41a) will be uttered in a situation where the hearer has evidently waited for some time, and the speaker wishes to confirm whether this was a long time or not. In each case, then, it can be suggested that the adverb/adjunct present in the questions in (39)–(46) is most naturally interpreted as constituting the narrow focus of the question.

Syntactically, it has elsewhere been argued at some length that the occurrence of focused constituents in a structure may prevent the establishment of various other syntactic relations that would link positions structurally above and below the focus—the creation of an ‘intervention effect’ induced by focus (Beck 2006; Kim 2002, 2006). It can therefore be suggested that the presence of a narrowly focused adverb in *ma* particle questions has the ability to interfere with and block the syntactic mechanism that otherwise results in the production of a verbal answer—movement of the verb to a higher clausal position, followed by ellipsis of the remnant constituent created by evacuation of the verb. The ill-formedness of verbal answers affirming the occurrence of an event carried out in the manner of a focused adverb can thus be attributed to an intervention effect in a way similar to the suggestion in Law (2006) that (the output of) Q-operator movement in A-not-A questions may be blocked by the intervening presence of adverbs of certain types, which interrupt the antecedent-government chain that needs to be established between the Q-operator and its lower

extraction-site.⁶ Example (50) is a schematization of such an intervention effect in verbal answers, where the structurally intervening presence of a focused adverbial causes the movement of the verb (or perhaps its output chain at LF) to be ungrammatical. Although the remnant XP is elided at PF, the adverbial remains syntactically present in the structure and thus interferes with the movement by the verb from its base position to a position above the subject.

(50) verb ..[XP subject adverb verb object]

Turning to consider the instances where a bare verb is judged to be acceptable as an affirmative answer to a question containing an adverb (as in (28)–(38)), in such cases, contexts and situations were created in which the adverb is part of a broader focus containing the verb and its arguments, and escapes the otherwise frequent tendency to be interpreted as narrowly focused. This incorporation of the adverbial element into a larger focused constituent including the verb was engineered in two ways when judgments of the relevant data were elicited from native speakers. In certain instances, contexts and situations were created in which events described by combinations of an adverbial with a verb and its arguments are expected to occur—hence the medical examination of a patient being carried out carefully (30), the beating of a discovered informant by a gangster being severe (31), and the clicking on a computer mouse being carried out twice (32), and so on. In such situations, hearers are much more easily able to interpret the question as asking for confirmation of whether the whole event described in the question occurred, hence that the whole TP is in broad focus, rather than assuming that the question is more narrowly focused on the content of the adverbial and establishing whether the event may have been carried out in the manner of the adverbial element. In other data presented to native speakers for their judgments of the acceptability of verbal answers, the question contained phrases equivalent to ‘following my instructions,’ as in (33) and (34), which help establish the content of the adverbial as part of an action that is expected to occur. A question containing such a phrase can again more easily be interpreted as asking for confirmation or denial of the occurrence of a whole event, rather than attracting semi-default narrow focus to the adverbial that is present. In all instances, therefore,

⁶ The intervention effect caused by adverbials in A-not-A questions may sometimes seem to be stronger than in *ma* particle questions. Investigations with native speakers show that even unfocused adverbs of the types identified in Law (2006) may sometimes cause intervention effects in A-not-A questions. For example, the contexts that allow adverbial elements to be construed as part of a broadly focused TP do not always seem to result in acceptable A-not-A questions, and (i) below remains unacceptable even if the same background context that licenses the *ma* particle question (38) is provided:

- (i) ??feiji cong L.A. qi-mei-qifei a?
plane from L.A. take-off-not-take-off Q
Intended: ‘Did the plane take off from L.A.?’

where hearers find it natural and easy to construe a question as asking whether an entire event may have occurred (broad sentential focus), verbal answers are judged to be acceptable, and indicate affirmation of the event (or situation) as a whole with no special narrow focus. Syntactically, if the verb is part of this broad focus and there is no other narrowly focused element present in the question, movement of the verb to a high clausal position will not be blocked by any intervention effect in the answer-form.

Briefly considering the syntactic derivation of *ma* particle questions (rather than potential answer-forms), because it is evident that narrowly focused adverbial elements may licitly occur in such questions with no impact on their grammaticality, it can be assumed that there is no movement of any type in such questions (for example, null operator movement), unlike in A-not-A questions, as Law (2006) indeed suggests. The question particle *ma* can be assumed to be directly inserted in C, following Law (2006), and the presence of narrowly focused adverbials does not cause any intervention effects. What about the answer-forms to *ma* particle questions that licitly contain narrowly focused elements such as adverbials? As a verbal answer is by hypothesis blocked from occurring due to the interference of the narrow focus and a potential intervention effect, an alternative strategy is regularly made use of to provide an affirmative answer to such questions, which is not the result of any similar movement—the base-generation of the particle *dui* (or *shi-de* in more formal registers) directly in C, just as the question particle *ma* is inserted in this position in the question input. Questions such as those in (39)–(46) containing a narrow focus are consequently given a positive answer with an equivalent to English ‘yes,’ confirming that the event occurred in the way of the adverbial element.⁷

Interesting, independent support for this view of the derivation of yes-no questions containing focused adverbial elements can be drawn from patterns that are found in Finnish, with its clear, overt-movement strategies in yes-no questions. When narrowly focused adverbials, PPs or arguments DPs occur in yes-no questions in Finnish and undergo raising to SpecCP to attach the Q-morpheme in the initial C-position, as seen in (50)–(52), a verbal answer to such yes-no questions is no longer possible, as in Chinese with the occurrence of focused adverbs in yes-no *ma* questions. In place of repetition of the verb as an affirmative answer-form, which is licensed in the absence of some other narrowly focused element, Holmberg (2001) reports that a Finnish

⁷ Note that it would not be sufficient to say that *dui/shi-de* are simply required as answer-forms because the speaker has an expectation that the answer will be true/affirmative, as verbal answers are indeed used to give an affirmative answer and provide a confirmation of the proposition being true. If yes-no questions contain a focused sub-part of the proposition that is being highlighted, this should still allow for an affirmative answer to be provided with repetition of the verb, confirming that the proposition embedding the focus is true. Furthermore, the occurrence of narrow focus on a constituent in a yes-no question does not imply that the speaker necessarily believes that the reply to the question will be positive (or negative), and simply signals a focused attention on the constituent, frequently in some light contrast to other entities. For example, if a speaker asks ‘Did you see Mary at the party?’ with narrow focus on ‘Mary,’ this does not result in or imply any particular expectation about what the answer will be, simply that the speaker is interested in finding out the information asked specifically with regard to Mary.

particle equivalent to ‘yes’ *kyllä* (or *niin* ‘so’) is inserted directly into C as a regular answer to such questions, as shown in (50).⁸

- (50) a. Houlellisestiko Jussi pesi auton
attentively-Q Jussi washed car
‘Was it attentively/carefully that Jussi washed the car?’
b. */??Pesi.
c. Niin/kyllä.
so/yes
‘Yes.’
- (51) a. Aamullako Pekka saapui Turkuun?
in-morning Pekka arrived at-Turku
‘Was it in the morning that Pekka arrived at Turku?’ (Karlsson 2007: 71)
b. ??/*Saapui.
arrived
c. Niin/kyllä.
so/yes
‘Yes.’
- (52) a. Pariisissako Matti on käynyt?
to-Paris-Q Matti has been
‘Is it Paris Matti has been to?’ (Holmberg 2001: 171)
b. ??On (käynyt).
has been
c. Kyllä.
yes
‘Yes.’

The unavailability of verb-movement as an answer-strategy in the presence of a focused adverbial (or other focused PP, DP) and its frequent replacement with the base-generation of an equivalent to ‘yes’ in C thus presents an interesting parallel to what is being described for Chinese and adds support to the hypothesis that focused adverbials create an intervention effect for the use of verb-movement in Chinese as an answer-form, necessitating instead the base-generation of an equivalent to ‘yes’ (*dui, shi-de*) in C.

Having considered alternating patterns in the ways that Chinese *ma* particle yes-no questions may be answered and having developed an analysis of restrictions on the verbal answer strategy, in section 5 we now turn to consider two other East/Southeast Asian languages, Korean and Vietnamese, and show how similar patterns and restrictions occur in these languages, suggesting that verbal answers in these languages also arise via a strategy of verb-movement that may be blocked by the presence of other focused material. We will also note that there is certain parametric variation in terms of the types of repeated material that may be used to answer yes/no questions that have a constituent focus. Finally, we will examine a previously unmentioned-on

⁸ Many thanks to Elsi Kaiser for very helpful discussion of these patterns in Finnish.

patterning in English that seems to show an interesting similarity to the phenomena seen in answer-forms in Vietnamese and Finnish.

5. Elliptical Answer Forms in Korean and Vietnamese

5.1. KOREAN

Korean allows for the use of verbs as affirmative answers to yes-no questions as in Chinese, as illustrated in (53b). In addition to the use of a repeated verb, yes-no questions in Korean may also regularly be answered with the particle *ne* 'yes,' as seen in the alternate answer-form in (53c).

- (53) a. Chayk-ul sassoyo?
book-ACC bought
'Did (you) buy a/the book?'
b. Sassoyo
bought
'Yes.'
c. Ne.
yes
'Yes.'

When adverbial elements occur in yes-no questions in Korean, such questions are fully grammatical, but the use of a verbal answer to such a question is sometimes not available and would not communicate a confirmation of the event in the question, modified by the content of the adverbial. For example, in (54), where a time adverbial *chaknyon* 'last year' occurs, the simple repetition of the verb as an attempted answer form is not perceived to be a legitimate answer to the question, and instead the use of the particle *ne* 'yes' is required to affirm that the buying event occurred in the previous year.

- (54) The speaker comments that the hearer's cell phone looks old and asks:
a. Chaknyon-e sassoyo?
last-year-in bought
'Did you buy (it) last year?'
b. *Sassoyo.
bought
Intended: 'Yes.'
c. Ne.
yes
'Yes.'

However, the unacceptability of a verbal answer to a question containing an adverb is not an across-the-board phenomenon, and in many instances it is possible to use a repetition of the verb to affirm an action modified by an adverbial element as the answer to a question, as seen in (55), where an adjunct PP indicating location occurs.

- (55) a. su-up kkus-na-go, tosokwan-eso kongbu haessoyo?
class finishing library-in study did
'After class, did you study in the library?'
b. Haessoyo.
did
'Yes.'

In (55), the adjunct PP is easily interpreted as part of the broad focus of the question, as a library is perceived to be an expected, regular location for the act of studying, hence the PP is not perceived as necessarily being in narrow focus. However, when there is no particularly close connection between an event and the place where it occurs, speakers report that it is difficult to accept a verbal answer as a legitimate

response to a question with a location adverbial, and the particle *ne* is required instead, as in (56).

- (56) Speaker asks about the purchase of a shirt the hearer is wearing:
a. Hawaii-e sassoyo?
Hawaii-in bought
'Did (you) buy (it) in Hawaii?'
b. *Sassoyo.
bought
Intended: 'Yes.'
c. Ne.
yes
'Yes.'

Turning to consider frequency adverbials, a parallel situation is found. When a frequency adverb combines with the verb and its arguments to represent a regular, common activity or event, such as going to school every day, then a verbal answer may be used to confirm the content of the predicate as modified by the adverbial, as in (57).

- (57) a. Mae-il hakkyo-e kayo?
every-day school-to go
'Do you go to school every day?'
b. Kayo.
go
'Yes.'

The use of a phrase such as 'following my instructions' can also help speakers readily accept the occurrence of a frequency expression in a yes-no question as part of a broad focus, rather than being in narrow focus, with the result that repetition of the verb is accepted as a legitimate answer, as in (58).

- (58) a. Che-ka mal han kot-chorom, tu-bon khulik haessoyo?
I-NOM speech did thing according 2-time click did
'Did you click twice, as I told you to?'
b. Haessoyo.
did
'Yes.'

However, in other instances the use of a verbal answer to attempt to affirm that an action is carried out with a certain frequency is not accepted as possible. For example, speakers do not accept the use of a repetition of the verb in (59) to affirm that the speaker watches television every day:

- (59) a. TV-rul chaju pwayo?
TV-ACC often watch
'Do (you) watch TV often?'
b. *Pwayo.
watch
Intended: 'Yes.'
c. Ne.
yes
'Yes.'

With duration adverbials, similar variation in the acceptability of verbal answers is again found. These are noted to be acceptable with events in which the duration is a period of time perceived to regularly occur with a particular activity, for example when it is part of a regularized food preparation activity, as in (60). In such cases, the duration adverbial appears to be easily interpreted as part of a broad predicate focus and does not strike hearers as requiring a narrow focus interpretation:

- (60) a. paetchu-rul han-shigan-tongan choryossoyo?
cabbage-ACC 1-hour-for pickled
'Did you pickle the cabbage for one hour (as you were supposed to)?'

- b. Choryossoyo.
pickled
'Yes.'

In other instances, speakers indicate that the attempt to answer a question containing an adverbial of duration is not felicitous and does not communicate the meaning of the adverbial in the question, only the content of the verb and its arguments, as in (61). Here the duration adverbial is strongly perceived to be in narrow focus, and this requires the particle *ne* to occur as an affirmative answer form.

- (61) a. Ku-saram-ul oraetdongan arassoyo? b. *Arassoyo. c. Ne.
this-person-ACC long-time known known yes
'Have you known him for a long time?' Intended: 'Yes.' 'Yes.'

Manner and comitative adverbials also show the same kind of variation seen with locative PPs, and frequency and duration adverbs. It is often felt that a manner adverb attracts a narrow focus to the adverb, as in (62), and in such instances a verbal answer is not acceptable, and would not communicate the content of the predicate modified by the manner adverb. However, verbal answers are acceptable in other instances, such as (63), where the manner adverbial is understood to be part of an action that is carried out regularly. Here the adverb is simply interpreted as being part of a broad predicate focus, and this allows for the repetition of the verb as an answer form.

- (62) a. Chelswu-ga Yongmi-rul tsege taeryossoyo?
Chelswu-NOM Yongmi-ACC severely beat
'Did Chelswu beat Yongmi severely?'
b. *Taeryossoyo. c. Ne.
beat Yes
Intended: 'Yes.' 'Yes.'
- (63) Army sergeant asks junior soldier:
a. chubang-ul ketkutchi tatkan-na b. Tatkassumnita.
kitchen-ACC cleanly polish-Q polished
'Did you polish the kitchen cleanly?' 'Yes.'

Finally, when a comitative adjunct PP combines with a predicate to convey an activity that can be understood to be a potentially regularized activity which might be asked about, hearers seem able to accept the PP as being part of the broad focus of a question, and find verbal answers to be acceptable answers to such questions, as illustrated in (64).

- (64) a. chu-il-e nampyon-irang kyohui-e kayo?
Sunday-on husband-with church-to go
'Do you go to church with your husband on Sundays?'
b. Kayo.
go
'Yes.'

However, in other instances where a comitative PP strikes hearers as being the narrow focus of a yes-no question, repetition of the verb cannot be used to convey the meaning of the comitative PP as well as that of the verb and its arguments, as illustrated in (65), and it is reported that *ne* must be used instead:

- (65) a. Yongmi-rang baekhwajom-e kassoyo?
Yongmi-with department store-to went
'Did you go to the department store with Yongmi?'
b. *Kassoyo. c. Ne.
went yes
Intended: 'Yes.' 'Yes.'

In the way that it makes verbal answers available as legitimate responses to questions containing adverbial elements, Korean thus appears to be very much like Chinese. The fact that adverbs and other adverbial adjuncts can indeed be interpreted as conveyed by a bare verbal answer in various instances cannot be attributed to the occurrence of pro-form adverbs or pro-PPs in Korean, for the same reasons that such elements are generally not assumed to be syntactically available, and the licensing of null pro-forms is restricted to elements projected in argument positions. Such patterns can therefore be argued to support an analysis in which verbal answers to yes-no questions may result from a process of verb-raising and remnant constituent deletion. The additional observation that verbal answers to questions containing adverbs are in other instances clearly restricted and not licensed when the adverbial is understood to be narrowly focused similarly requires an explanation, and can be attributed to a blocking effect caused by the narrowly focused adverbial on the raising of the verb, that is, an intervention effect as suggested to occur in Chinese.

5.2. VIETNAMESE

Vietnamese is a pro-drop SVO language of Southeast Asia, which earlier received much influence from extended contact with Chinese. Verbal answers to yes-no questions also occur in Vietnamese, as illustrated in (66) and (67).

- (66) a. Bạn có thích xem phim không? b. Thích.
friend CO like see film NEG like
'Do you like watching films?' 'Yes.'
- (67) a. Bạn muốn đi mua sắm không? b. Muốn.
friend want go buy shopping NEG want
'Do you want to go shopping?' 'Yes.'

There are three ways that yes-no questions are commonly created. First, the pairing of the element *có* ('to have/be,' similar to Mandarin *you*) and sentence-final negation *không* can occur, frequently bracing the VP as schematized in (68) and seen in (66), (69), and (70). Such questions are 'open' questions in the sense that there is no

expectation on behalf of the speaker that the answer will be 'yes' or 'no.' In addition to frequently allowing a verbal answer, *có-không* questions also regularly permit the use of the repetition of *có* as an affirmative answer form, as seen in (69) and (70).

(68) Subject có VP không?

(69) a. Bạn có gặp Nam hôm qua không? b. Có. c. Gặp.
friend CO meet Nam yesterday NEG CO meet
'Did you see Nam yesterday?' 'Yes.' 'Yes.'

(70) a. Bạn có học tiếng pháp không? b. Có. c. Học.
friend CO study language France NEG CO study
'Do you study French?' 'Yes.' 'Yes.'

Second, the elements *phải không* (or more informally *hả*) can be placed sentence-finally as schematized in (71), creating a yes-no question that tends to expect an affirmative answer, in certain ways similar to English tag-questions of the form '... is that right?' Such questions can potentially be answered with the particle *ừ* 'correct/yes' or a verbal answer, as illustrated in (72).

(71) ..., phải không?

(72) a. Bạn thích xem ti-vi phải không? b. Ừ. c. Thích.
friend like see TV correct NEG yes like
'You like to watch TV, is that right?' 'Yes.' 'Yes.'

Third, yes-no questions with a perfect tense interpretation can be created with the use of *chưa* 'yet' in sentence-final position, as schematized in (73). Such questions can be answered in the affirmative with a repetition of the verb plus the aspectual morpheme *rồi*, which is similar in meaning to Mandarin sentential *le*, resulting in a verbal answer similar to past time verbal answers in Mandarin of the form V-le seen in examples (29)–(34). *Chưa* yes-no questions may also be answered with the element *rồi* with no accompanying verb, as illustrated in (74c). In this patterning, Vietnamese *rồi* is clearly different from Mandarin *le*, which cannot stand unsupported in a sentence.

(73) ... chưa?

(74) a. Bạn có học tiếng pháp chưa? b. Học rồi. c. Rồi.
friend CO study language France yet study ASP ASP
'Have you studied French yet?' 'Yes.' 'Yes.'

Neither *có-không* questions nor *chưa* yes-no questions can be answered with the particle *ừ*, which is restricted to occurring as an affirmative answer to non-open *phải không* questions.

As in Mandarin and Korean, when adverbs are introduced into yes-no questions, a difference in patterning emerges, relating to whether such elements are understood to be in narrow focus, or part of a broader focus. With *phải không* and *chưa* yes-no questions, when an adverb can be naturally taken to be part of a broader focus, perhaps

as part of a frequent action or activity, a verbal answer can be used as an affirmative reply and can convey the meaning of the verb, its arguments, and the accompanying adverb, as illustrated in (75):

(75) a. Bạn nhấn hai lần phải không/chưa? b. Nhấn rồi.
friend click 2 time correct NEG/yes click ASP
'You clicked twice, is that right/Did you click twice yet?' 'Yes.'

With *có-không* questions, frequently the element *có* is felt to be required in an affirmative answer, and this may or may not be accompanied by a repetition of the verb. In instances where adverbs or other adjuncts such as PPs are present, the *có* + verb fragment answer may occur when the adverbs/adjuncts are not interpreted as being in narrow focus, as illustrated in (76c), but such a verbal fragment answer is not possible when adverbs/other adjuncts are strongly felt to be the narrow focus of a question, as seen in (77c).

(76) a. Bạn có đi chùa với vợ vào Chủ Nhật không? b. Có. c. Có đi.
friend CO go temple with wife on Sunday NEG CO CO go
'On Sunday, do you go to the temple with your wife?' 'Yes.' 'Yes.'

(77) a. Bạn có thường xem ti-vi không? b. Có. c. */??Cố xem.
friend CO often see TV NEG CO CO see
'Do you often watch TV?' 'Yes.' Intended: 'yes.'

Such patterns are similar in essence to those found in Mandarin and Korean, with the occurrence of narrow focus on an adverb or other adjunct apparently blocking the use of verbal repetition as an answer-form. Where Vietnamese shows an interesting difference to Mandarin and Korean is in its greater versatility of type of fragment answer forms. In Mandarin and Korean, when the presence of a narrowly focused adverbial in a yes-no question blocks the use of a verbal answer, it requires instead the use of a 'yes' particle, assumed to be base-generated in C. However, in equivalent instances of narrow focus on an adverbial element in Vietnamese, what frequently substitutes for a blocked verbal answer is in fact a repetition of the focused adverbial itself. This is shown in the following set of examples, where the narrowly focused adverbial element which occurs as the fragment answer are, respectively, adverbials of manner (78)–(79), frequency (80)–(81), duration (82), and time (83).

(78) a. Bạn có học hành chăm chỉ không?
friend CO study diligently NEG
'Did you work hard?'
b. Chăm chỉ. c. *Học hành. d. Có.
diligently study CO
'Yes.' Intended: 'Yes.' 'Yes.'

(79) a. Sếp của Nga đối xử nó tệ lắm hả?
boss of Nga treat her meanly very Q
'Does Nga's boss treat her meanly?'

- b. tệ lắm. c. *Đổi xử d. Ừ.
meanly very treat yes
'Yes.' Intended: 'Yes.' 'Yes.'
- (80) a. Bạn gội đầu mỗi ngày phải không?
friend wash hair every day correct NEG
'Do you wash your hair every day?'
b. Mỗi ngày. c. *Gội đầu d. Ừ.
every day wash hair yes
'Yes.' Intended: 'Yes.' 'Yes.'
- (81) a. Khi Jean-Louis chào bạn, anh ta có hôn bạn hai lần phải không?
when Jean-Louis greet friend he CO kiss friend 2 time correct NEG
'When J-L greets you, does he kiss you twice?'
b. Hai lần. c. *Hôn. d. Ừ.
2 time kiss yes
'Yes.' Intended: 'Yes.' 'Yes.'
- (82) a. Trước khi bạn chiên cá, bạn ướp nó một tiếng phải không?
before friend cook fish friend marinate it 1 hour correct NEG
'When you cook the fish, do you marinate it for an hour?'
b. Một tiếng. c. *Ướp. d. Ừ.
1 hour marinade yes
'Yes.' Intended: 'Yes.' 'Yes.'
- (83) a. Bạn gặp Nam hôm qua phải không?
friend meet Nam yesterday correct NEG
'Did you see Nam yesterday?'
b. Hôm qua. c. *Gặp. d. Ừ.
yesterday meet yes
'Yes.' Intended: 'Yes.' 'Yes.'

Such a patterning is not possible in Mandarin and Korean, where only 'yes'-type particles are used when verbal answers are blocked by narrow focus on adverbials. Interestingly, however, they do occur in Finnish, when adverbs are narrowly focused and raised to attach the question morpheme *-ko* in C. Consider example (50), repeated here as (84). It is pointed out in Holmberg (2001) that such examples containing a raised adverbial may be regularly answered with a particle equivalent to 'yes' *niin/kyllä*, and that repetition of the verb is not possible as an affirmative answer in such instances. However, in addition to the use of *niin/kyllä* 'yes,' it is also possible to use a repetition of the adverb as an answer, without any accompanying *niin/kyllä*, as now shown in answer-form (84d).

- (84) a. Huolellisesti Jussi pesi auton?
attentively-Q Jussi washed car
'Was it attentively/carefully that Jussi washed the car?'

- b. */??Pesi.
c. Niin/kyllä.
so/yes
'Yes.'
d. Huolellisesti.
attentively
'Yes.'

Although the use of a repeated adverbial as an alternative strategy to the use of a yes-type particle in Finnish is not discussed by Holmberg, the analysis of verbal answers in Finnish developed in Holmberg (2001) in which the verb raises to the C-domain and the clausal complement following this is elided in the answer can be argued to carry over very naturally to the use of adverbial answers. It can be assumed that the focused adverbial also undergoes raising in the answer-form, this being followed by deletion of the remnant clausal constituent to its right, eliding the verb, subject, and object.

If the analysis of verbal arguments in Chinese and Korean that views them as also raising to the C-domain is essentially on the right track, and similar focus-related patterns are found to occur in Vietnamese when adverbials occur, it is natural to suggest that the use of adverbials as fragment answer-forms in Vietnamese is an extension of this patterning, in which the adverbial itself as the narrow focus of the sentence undergoes raising, followed by PF deletion of the remnant constituent created by this movement. Such a movement-and-deletion approach to the use of bare adverbials as answers to yes-no questions would seem to be supported by the observation that this strategy is unavailable when a narrowly focused adverb occurs within an island constituent, and in such instances an alternative way of affirming the answer must be made use of, either the use of *ừ* in a *phải không* question or the repetition of *có* in a *có-không* question.

- (85) a. Bạn khen sinh viên ma đọc xong tờ báo nhahn, phải không?
friend praise student REL read ASP paper quickly correct NEG
'Did you praise the student who read the paper quickly?'
b. *Nhahn. c. Ừ.
quickly yes
Intended: 'Yes.' 'Yes.'

Vietnamese can therefore be argued to show an interesting development of the verbal-answer strategy elsewhere found in Chinese and Korean, allowing various other narrowly focused constituents to undergo raising, similar to the verb in a broad focus question by hypothesis, as an input to the PF deletion of other elements in the answer-form contained in the lower remnant produced by movement. As in Finnish, this strategy regularly exists as an optional alternative to the use of a particle-like element signaling an affirmative answer, *ừ* in a *phải không* question or the repetition of *có* in a *có-không* question, as seen in (78)–(84). It can also be noted that although Vietnamese patterns more like Finnish in this respect and is different from Mandarin

and Korean, not all narrowly focused elements appear to be eligible as targets for raising in the attempted creation of affirmative fragment answers, and PPs and DP arguments are regularly unacceptable as isolated, affirmative answers even when interpreted as being in narrow focus. This is illustrated in (86)–(89).

- (86) a. Sau giờ học, bạn học trong thư viện phải không?
after hour study friend study in library correct NEG
'After class, did/do you study in the library?'
b. Ủ. c. ??Trong thư viện.
yes in library
'Yes.' Intended: 'Yes.'
- (87) a. Bạn mua cái áo này ở Hawaii phải không?
friend buy CL shirt that in Hawaii correct NEG
'Did you buy that shirt in Hawaii?'
b. Ủ. c. ??Ở Hawaii.
yes in Hawaii
'Yes.' Intended: 'Yes.'
- (88) a. Bạn có đi mua sắm với Nga phải không?
friend CO go buy things with Nga correct NEG
'Did you go shopping with Nga?'
b. Ủ. c. ??Với Nga.
yes with Nga
'Yes.' Intended: 'Yes.'
- (89) a. Bạn có thích Nga phải không?
friend CO like Nga correct NEG
'Do you like Nga?'
b. Ủ. c. ??Nga.
yes Nga
'Yes.' Intended: 'Yes.'

In such instances it can be suggested that the relevant (+Affirmative) features that may be generated with verbs and other narrowly focused adverbial elements and that trigger raising of these elements to the C-domain are simply unavailable for combination with PPs and DP arguments, just as they apparently may not be combined with elements other than the verb in Chinese and Korean. Consequently, PPs and DP arguments in Vietnamese may not be attracted to the high clausal polarity position that licenses deletion of its clausal complement in affirmative answer-forms. A consideration of fragment answers to yes-no questions in Vietnamese thus suggests that there is certain parametric variation among East and Southeast Asian languages regarding the range of elements that may participate in such elliptical answer-forms, with the core case being the use of a repetition of the verb in instances of broad focus, and possible use of the repetition of (non-PP) adverbials as affirmative responses to narrow-focus questions in Vietnamese but not Chinese or Korean.

Comparing what is found in Mandarin, Korean, and Vietnamese with Finnish once again, we arrive at an even fuller range of variation relating to possible fragment answer-forms to yes-no questions. Earlier it was noted that when an adverb is narrowly focused and fronted to the clause-initial Q-morpheme *-ko* in Finnish, it may occur naturally as a fragment answer. Now it can be added that Finnish actually extends the range of possible fragment answer constituents further than Vietnamese, and also allows for both PP-like oblique case-marked nominals and DP arguments to occur as elliptical answers when such elements have been fronted in the input questions, as illustrated in (90)–(92) (examples from Karlsson 2007: 70–71):

- (90) a. Mäntyniessäkö presidentti assu?
at.Mäntyniemi.Q president lives
'Is it at Mäntyniemi that the president lives?'
b. Mäntyniessä. c. Niin.
at.Mäntyniemi yes
'Yes.' 'Yes.'
- (91) a. Autonko state?
car.Q bought
'Was it a car that you bought?'
b. Auton c. Niin.
Car yes
'Yes.' 'Yes.'
- (92) a. Pekkako saapui Turkuun aamulla?
Pekka.Q arrived Turku at morning.in
'Was it Pekka who arrived at Turku in the morning?'
b. Pekka c. Niin.
Pekka yes
'Yes.' 'Yes.'

This varied distribution of fragment answers to yes-no questions across languages is summarized in the table in (93). As has been noted, the core case of using an element in the question-form to answer a yes-no question where an equivalent to 'yes' is not used is repetition of the verb, and this is common to all four languages considered here. If a language allows verbal answer forms, it may or may not permit other constituents such as adverbials, PPs/locatives, and nominal arguments to also occur as affirmative fragment answers. As it does not seem that the range of elements occurring as fragment answers to yes-no questions can be clearly predicted from other properties of a language (for example, Chinese and Vietnamese are typologically very similar languages, yet differ considerably here in the elements permitted to occur as affirmative answer fragments), the cross-linguistic differences reported in (93) are arguably best described in terms of a purely mechanical, featural way. The direction of argument that has been taken up and pursued in this chapter is to attribute the occurrence of verbal and other fragment answers to a process of movement and ellipsis, resulting in the PF deletion of the clausal constituent from which the fragment answer has been extracted. As such an account critically requires movement of the

fragment answer to a clause-initial position and some formal set of features to trigger this movement, the variation in (93) can be ascribed to the ability of different elements to carry the necessary feature in different languages, which can simply be referred to as Aff(irmative) features, signaling an affirmative reply to the question being asked. Hence Aff-features may hypothetically be combined with a full range of elements in Finnish, with elements other than nominal arguments in Vietnamese, and with just verbs in Chinese and Korean, allowing these elements to be attracted to the high clausal polarity head, which functions as the locus of affirmation and negation in answers to yes-no questions.

(93) Elements potentially occurring as affirmative fragment answers to yes-no questions

	verbs	adverbials	PPs/locatives	nominal arguments
Chinese	✓	*	*	*
Korean	✓	*	*	*
Vietnamese	✓	✓	✓	*
Finnish	✓	✓	✓	✓

5.3. ENGLISH

A final patterning that will be presented here comes from a language that at first sight appears to have no connection with the primary phenomenon of this chapter, that is, the repetition of a verb as an affirmative answer-form. Verbal answers do not occur in English. However, once one starts to consider the potential use of elements other than verbs as affirmative answers to yes-no questions, as in Vietnamese and Finnish, it can be noted that there are patterns in English that actually do seem to exhibit an intriguingly similar use of elements repeated from a yes-no question as fragment answers to such questions. To the best of my knowledge, what will be described here has not been reported on previously and is most certainly restricted to very colloquial, spoken English. In both British and American English, yes-no questions with a narrow focus on an adverbial element or an argument of the verb may be answered with a simple repetition of the narrowly focused constituent under certain circumstances. In all acceptable uses of this strategy, some clear intensification of the repeated element is required. This may be achieved by the addition of an emphatic modifier and/or with the use of special emphatic intonation that involves exaggerated high pitch on the primary stressed syllable of the repeated word, followed by lower pitch on a following syllable. This is initially illustrated in (94) and (95):

- (94) a. Did you grade the papers quickly?
 b. VEry quickly.
 c. ??Quickly.
- (95) a. Did you greet everyone who came to the party?
 b. EVeryone!

The responses in (94b) and (95b) are affirmations of the proposition asked about in the question, which also add some additional information about this affirmation. In (94b) the additional information is a simple modification of the degree to which the action was indeed carried out in the manner of the adverb. In (95b), the natural interpretation of the affirmative answer communicated by repetition of the DP object with special high stress on the first syllable is that the speaker did indeed greet every person who came to the party and this is a remarkable achievement, perhaps because there were very many people at the party. (95b) might also naturally occur in a situation in which the speaker wishes to communicate that s/he is exhausted from the chore of having to greet all the many guests at the party. A very similar additional component of meaning occurs in the fragment answer form in (96), which repeats part of the duration adverbial as an affirmation of the content of the question. (96b) might be naturally produced in a situation in which the speaker feels that the period of five years has been an extremely long and perhaps trying time.

- (96) a. Have you known this student for five years?
 b. FIVE YEars!

The importance of a context that is remarkable in some way for the appropriate use of such fragment answer-forms is illustrated further in (97), (98), and (99). The reply to (97a) in (97b) may occur if the speaker feels that it is somehow remarkable and unexpected that she should have attended the party with her husband rather than someone else (perhaps because she and her husband are estranged). (98b) could be used as a reply to a question in which the fact that the speaker made his/her purchase in Hawaii has some additional significance that the person asking the question in (98a) might be expected to understand. Similarly, (99b) may occur naturally in a situation in which the speaker feels that it is remarkable that John would date Mary, and wishes to add this information to the affirmative reply.

- (97) a. Did you go to the party with your husband?
 b. With my HUSband...!
- (98) a. Did you buy that shirt in Hawaii?
 b. In HAWAII.
- (99) a. Is John now dating Mary?
 b. MAry!

Syntactically, the use of such emphatic repetitions as affirmative fragment answers seems to be restricted in a way that is island-sensitive and indicative of derivation by movement. As illustrated in (100b) and (101b), it is not possible to repeat fragments that correspond to elements within island constituents in the input yes-no questions.

- (100) a. Did John get angry because Mary flirted with Stephen?
 b. ??With STEphen!

(101) a. Did you know someone who is living in Hawaii?

b. ??In HAWAII.

As with the use of fragment answer to *wh*-questions discussed in Merchant (2004), and the derivation of fragment answers to yes-no questions proposed here for Chinese, Vietnamese, and Korean, and for Finnish and other languages in Holmberg (2001, 2007), it can be suggested that these 'remarkable fragment answers' to yes-no questions in English arise as the result of movement of the repeated constituent to a high clausal position and deletion of the remnant clausal constituent created by this movement. The licensing trigger for this movement can be attributed to the special focal quality of the fragment, and the remarkable, emphatic nature that such answer-forms must have to be acceptable. Formally, it can be suggested that focus-features associated with the fragment constituents make such elements visible for movement to SpecCP and feed the ellipsis of the clausal complement of C.

From a cross-linguistic viewpoint, two final points can be made about this patterning in English and how it relates to what has been documented in the other languages under discussion in this chapter. First, although a wide range of constituents in English seem able to serve as fragment answers to yes-no questions in appropriate 'remarkable' contexts, this possibility does not seem to be open to verbs, even if emphatic intonation is applied and a context in which the content of the verb is focused and remarkable is constructed.

(102) a. Did you destroy the letter?

b. ??*DestROY(ed).

(103) a. Will you go?

b. ??*WILL.

English yes-no fragment answers thus seem to show an inverse distribution to Chinese and Korean, where only verbs occur as fragment answers to yes-no questions. Second, it is relevant to point out that the special 'remarkable' focal prominence of fragment answer-forms to yes-no questions in English is not a regular or required property of verbal answer-forms in Chinese, Korean, or Finnish, though a certain amount of speaker emphasis frequently does occur with verbal answers in Vietnamese (yet not signaling any necessary highly remarkable quality of the affirmation, as in English). Furthermore, while the use of adverbials and argument DPs as fragment answers in Finnish requires that these be narrowly focused in the input question, such elements do not necessitate any of the additional 'unexpected' focal quality common in the English data considered here. Finally, it can be noted that an additional feature of the English fragment answer pattern is that there is strong pressure for such answer forms to be accompanied by and supplemented with a simultaneous (slow) nodding of the head as a gestural affirmation of the content of the question. However, no such similar head movements are required for the use of narrowly focused constituents as affirmative answer-forms in (for example) Finnish, which are therefore able to communicate affirmation without any special additional reinforcement. The English use of fragment-answers to yes-no questions is consequently distinguished in certain

ways from those found in the other languages investigated here, while also seeming to be best analyzed as the product of movement and clausal ellipsis, as hypothesized for Chinese, Korean, Vietnamese, and Finnish.

6. Summary

Taking as its starting point Law's interesting (2006) paper on adverbs and yes-no questions in Chinese, in which it is convincingly argued that there is some form of operator movement in A-not-A questions but not *ma* particle questions, this chapter has focused its attention on the answer-forms that may occur with the latter type of particle question, and has argued that some kind of movement is in fact associated with *ma* particle questions, not in the questions themselves but in the derivation of verbal answers which consist in a repetition of the verb in the input question. The hypothesized, frequent occurrence of movement of the verb in verbal answers is partially obscured by the fact that there is also an alternative non-movement strategy available to answer many *ma* questions, the use of a particle equivalent to 'yes' (*dui* or *shi-de*) directly inserted into the high C-domain polarity head where interrogativity and affirmation is specified, and this non-movement strategy of answering a *ma* question can be used in instances where movement is by hypothesis not possible; hence there will always be some grammatical way of answering a well-formed *ma* question. The chapter has explored the hypothesis that movement of the verb in answers to *ma* questions is revealed in the restrictions on the availability of the use of a verbal answer form in the presence of adverbs, and in the interpretation verbal answers give rise to when adverbial elements are present in questions. When such elements are part of a broader focus in a *ma* question, the bare repetition of the verb as an affirmative answer also communicates the content of the adverbial element as a modifier of the event/action that is affirmed to have taken place/hold as a situation. It was noted that this 'adverb-inclusive' interpretation is unexpected in an approach to verbal answers that analyzes these as simply resulting from the use of null arguments (*pro*, *TECs*) combined with the verb. While null proform-type elements are commonly assumed to be potentially available for subject and object arguments of the verb in many languages, the existence of null adverbials is not supported or assumed to be licensed, and there are patterns which clearly suggest that such elements do not exist. A movement account of verbal answers in which such forms are created by movement of the verb to a high, polarity-related position in the C-domain followed by PF ellipsis of the clausal complement of such a head is straightforwardly able to account for the interpretation of adverbs in answer-forms. These are syntactically projected and present in the answer-form, but phonetically elided as part of a larger clausal constituent, also containing the subject and object, which the verb is extracted from.

Additionally, it was noted that in other instances where an adverbial that is present in a *ma* question is not easily interpreted as being part of a broader predicate/event focus and is instead salient as a narrowly focused constituent, a verbal answer is no longer possible, and it is necessary to use *dui* (or *shi-de*) to answer such a question. This patterning was explained in terms of an intervention effect that the focused adverbial creates, blocking movement of the verb across it (or disrupting the

chain formed by this movement and its LF licensing), and requiring a non-movement answer-form—the insertion of *dui* directly in C.

Turning to consider related patterns in four other languages, it was first noted that the distribution of verbal answers in Korean in questions with adverbials bears strong parallels with those in Chinese, and lends itself to a parallel analysis in terms of verb movement and potential intervention effect interference when narrowly focused adverbials occur in the question. In Vietnamese, similar patterns were again found, but with the extra twist that a yes-no question with a narrowly focused adverbial can be answered with a simple repetition of the adverbial itself. Finnish was also shown to allow for this possibility, with movement of narrowly focused adverbials occurring clearly in questions as well. Unlike Vietnamese, however, it was seen that Finnish allows for narrowly focused DP arguments and various PP adjuncts to occur as fragment answers to yes-no questions; hence a range of variation was ultimately discovered with regard to the type of syntactic constituents that different languages allow to occur as fragment answers affirming the content of yes-no questions.

Finally, we considered what appears to be a related phenomenon in English, the use of a range of different elements as fragment answers to yes-no questions, but with the restriction that such fragment answers may only occur when there is a very strong focal-emphasis associated with the affirmation and the speaker implies that the occurrence of the event/action described is somehow remarkable.

Quite generally, it was suggested that the spectrum of variation is best modeled with the assumption that different languages place differing restrictions on the kinds of elements that are permissible hosts for the affirmation-associated features which make such elements legitimate targets for movement in answers to yes-no questions, and that a non-movement approach attributing verbal answers to the simple use of null arguments combined with a verb might not expect such variation to occur and might not be able to model this in a uniform way.

As a very final note, it can be emphasized that taking Chinese as the starting point of an investigation into the phenomenon of verbal answers, the differences found in the patterning of two special types of yes-no question in Chinese (A-not-A and *ma* particle questions) have led on naturally to the discovery of a broader patterning of cross-linguistic variation in the use of fragment answers to yes-no questions, and to the general conclusion that fragment answers occur not only as answers to *wh*-questions, as previously well documented, but also in various languages and forms as answers to yes-no questions. It will now be interesting to attempt to track the use of fragments as answers to yes-no questions further across languages to establish a fuller typology of this understudied phenomenon.

References

- Aoun, Joseph, and Audrey Y.-H. Li. 1989. Scope and constituency. *Linguistic Inquiry* 20, 141–172.
- Aoun, Joseph and Y.-H. Audrey Li. 2008. Ellipsis and missing objects. In *Foundational Issues in Linguistic Theory*, ed. Robert Freidin, Carlos Otero, and Maria Luisa Zubizarreta, 251–274. Boston: MIT Press.

- Beck, Sigrid. 2006. Intervention effects follow from focus interpretation. *Natural Language Semantics* 14(1), 1–56.
- Ernst, Thomas. 1994. Conditions on Chinese A-not-A questions. *Journal of Chinese Linguistics* 3, 241–264.
- Han, Chung-hye, Jeffrey Lidz, and Julien Musolino. 2007. V-raising and grammar competition in Korean: Evidence from negation and quantifier scope. *Linguistic Inquiry* 38(1), 1–47.
- Holmberg, Anders. 2001. The syntax of yes and no in Finnish. *Studia Linguistica* 55, 141–174.
- Holmberg, Anders. 2007. Null subjects and polarity focus. *Studia Linguistica* 61(3), 212–236.
- Huang, James C.-T. 1982. *Logical Relations in Chinese and the Theory of Grammar*. Doctoral dissertation, MIT.
- Huang, C.-T. James. 1984. On the distribution and reference of empty pronouns. *Linguistic Inquiry* 15, 531–574.
- Huang, C.-T. James. 1987. Remarks on empty categories in Chinese. *Linguistic Inquiry* 18, 321–337.
- Huang, James C.-T. 1991. Modularity and Chinese A-not-A questions. In *Interdisciplinary Approaches to Languages: Essays in Honor of S.-Y. Kuroda*, ed. Carol Georgopoulos and Robert Ishihara, 305–332. Dordrecht: Kluwer.
- Huang, C.-T. James, Y.-H. Audrey Li, and Yafei Li. 2009. *The Syntax of Chinese*. Cambridge: Cambridge University Press.
- Karlssohn, Fred. 2007. *Finnish: An Essential Grammar*. London: Routledge.
- Kim, Shin-Sook. 2002. Intervention effects are focus effects. In *Japanese/Korean Linguistics* 10, ed. Noriko Akatsuka and Susan Strauss, 615–628. Stanford, CA: CSLI.
- Kim, Shin-Sook. 2006. More evidence that intervention effects are focus effects. In *Proceedings of the 8th Seoul International Conference on Generative Grammar: Minimalist Views on Language Design*, ed. Changguk Yim, 161–180. Seoul: Hankook.
- Law, Paul. 2006. Adverbs in A-not-A questions in Mandarin Chinese. *Journal of East Asian Linguistics* 15(2), 97–136.
- Li, Charles, and Sandra Thompson. 1989. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.
- Li, Y.-H Audrey. 2007. Beyond empty categories. *Bulletin of the Chinese Linguistic Society of Japan (Chuangoku Gogaku)* 254, 74–106.
- Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and Philosophy* 27(6), 661–738.
- Saito, Mamoru. 1985. *Some Asymmetries in Japanese and Their Theoretical Implications*. Doctoral dissertation, MIT.