Title: Full and Partial wh-Movement in Kashmiri

Abstract:
This paper proposes a new account of wh-movement and wh-expletive constructions in the Indic language Kashmiri. Previous approaches to wh-expletive phenomena generally fall into two categories: direct and indirect dependency. This account is distinct from both of these approaches in claiming no semantic or syntactic connection between the wh-expletive and the full wh-phrase in a lower clause. Instead I propose that full and partial wh-movement constructions are motivated by a system of interpretable and uninterpretable features, and that wh-expletives serve to satisfy the EPP on the phase-defining head. While this account covers significant empirical ground, it makes no use of devices particular to the construction under analysis here. Instead the mechanisms proposed apply to all of A-bar movement, and in fact reveal the symmetry of design between the A and A-bar systems.
Full and Partial wh-Movement in Kashmiri

0. Introduction
The Indic language Kashmiri exhibits both full and partial wh-movement as question formation strategies in sentences with multiple clauses.

(1) tse kem' chu-y ba:sa:n ki mohn-as dits kita:b
  you who aux think that Mohan gave book
  ‘Who do you think gave Mohan the book?’

(2) tse k'a: chu-y ba:sa:n ki mohn-as kem' dits kita:b
  you expl aux think that Mohan who gave book
  ‘Who do you think gave Mohan the book?’

The question word in the subordinate clause receives a matrix scope interpretation in both (1) and (2). In (1) this interpretation is achieved by movement of the question word kem' 'who' into the matrix clause. In (2) this is achieved via the presence of a minimal question word k'a ('what') in the scope position in the matrix clause, while the contentful question word kem' remains in the subordinate clause.

Previous approaches to these constructions generally fall into two classes. So-called ‘direct dependency’ analyses (McDaniel 1986; Rizzi 1992; Mahajan 1990; inter alia) contend that a direct syntactic connection is formed between the meaningless question word and the contentful question word, mediated by chains and conditions on chain formation. The second class of approaches, called ‘indirect dependency’ accounts (Kiss 1987; Haider 1993; Dayal 1994, 1996; inter alia), deny that any such syntactic connection exists. Instead they claim that the meaningless question word is coindexed with or replaced by the clause containing the contentful question word at the level of Logical Form (LF), and this is how the correct interpretation is achieved.

The account proposed here falls squarely into neither of these classes. It does build on important properties of each, maintaining that the meaningless question word is base-generated in a clause-internal (not clause-peripheral) position as in the indirect dependency approaches, but also that the role played by the meaningless question word itself is entirely a syntactic one, as in direct dependency analyses. However, the essential point of contrast with these two camps is the claim developed in the present paper that there is no connection at all between the meaningless question word and the contentful question word in a lower clause, whether syntactic or at some level of interpretation. Instead, the role of the meaningless question word in the A-bar system will be analyzed as comparable to that of nominal expletives in the A-system (following in the spirit of recent approaches by Simpson (2000) and Fanselow and Mahajan (2000)).

The issues ultimately at stake here are large – in particular the question of whether the syntax of the left periphery (the A-bar system) is governed by the same organizing principles as clause-internal syntax (the A-system). If the proposals developed here are on the right track, then the two systems emerge as being completely parallel – in a way that does not emerge so clearly from the more closely studied languages.

Section 1 of this paper reviews important features of Kashmiri syntax, particularly with respect to its verb-second requirements and the way in which simple questions are formed. Section 2 suggests an approach to the syntax of the rich left periphery of the
Kashmiri clause, which is vital in determining where wh-material is located with respect to other constituents. Section 3 contains the analysis of wh-movement and wh-expletive constructions in Kashmiri and compares the reach of this account with previous approaches to wh-expletive phenomena. In Section 4, I discuss two remaining questions, one internal to Kashmiri and one crosslinguistic in nature. Section 5 concludes the paper.

1. An Introduction to Kashmiri – Verb-Second and Question Formation

Kashmiri is unusual among the Indic languages in exhibiting the verb-second (V2) property, more familiar from Germanic and the older Romance languages. Kashmiri’s exact requirements as to the linear position of the verb are unique, and are described below.

The unmarked word order of a Kashmiri tensed root clause is:

(3) subject-finite verb-indirect object-direct object

The finite verb must be the second constituent in the clause, but any of the arguments (or other constituents) may appear first. The order of the postverbal elements is also fairly free, though the subject must immediately follow the second-position verb if the sentence is not subject-initial. So while (4a) would be an unmarked order, (4b-e) are also grammatical.

(4)

a. aslaman dits mohnas kita:b ra:mini khe:tri ra:th
   ‘Aslam gave Mohan a book for Ram yesterday.’

b. mohnas dits aslaman kita:b ramini khetri ra:th

c. kita:b dits aslaman mohnas ramini khetri ra:th

d. ra:mini khe:tri dits aslaman mohnas kita:b ra:th

e. ra:th dits aslaman mohnas kita:b ra:mini khe:tri

In non-finite clauses, the verb is clause-final.

(5) me chu [tem-sund batI ran-u-n] khar-a:n. (Bhatt, 1999)
   I aux he-of food(m) cook(m)-Inf dislike-perf
   ‘I don’t like his cooking food’

In some cases, additional constituents can precede the verb. In constituent questions, the question word must appear before the verb in addition to some other constituent. Only if the question word is the subject, may it appear alone in sentence initial position.

(6)

a. rajan kemis he:v nev kita:b?
   Raj whom showed new book
   ‘To whom did Raj show his new book?’

b. kem’ he:v shi:las nev kita:b ra:th
   who showed Sheila new book yesterday
   ‘Who showed a new book to Sheila yesterday?’

Unlike in some Germanic languages, verb-initial sentences are rare in Kashmiri, and restricted to situations in which the topic is in some way null or understood (Bhatt 1999).

Subordinate clauses are identical to matrix clauses in their word order, except that they are optionally preceded by the particle ki ‘that’. This particle is not counted in determining verb-second position. These facts are exemplified by the bolded material in the sentence in (7).

1 All Kashmiri data from Wali and Koul (1997) unless otherwise noted.
(7) mi:ra:yi cha pata: ki kamis dits mohnan kita:b. (Wali 2002)
Mira aux know that who gave Mohan book
‘Mira knows who gave Mohan the book.’

2. Towards an Understanding of Kashmiri Phrase Structure

Developing some working assumptions concerning Kashmiri phrase structure will allow us to pursue an analysis of question formation in Kashmiri. The schematic in (8) lists the elements that must be located syntactically, as well as their relative surface order. Not all of these phrases may co-occur (see the descriptions above), but all must have some position in the phrase structure.

(8) Matrix Clause
a. [Topic XP] [Wh-word(s)] [Focused XP] [verb] [TP] Subordinate Clause
b. [ki] [Topic XP] [Wh-word(s)] [Focused XP] [verb] [TP]

In the traditional view of the clause edge, there is a single CP projection preceding TP which hosts left peripheral material. It seems unlikely that this single projection will be sufficient for all of the material in (8), but it is worth examining how this approach falls short.

Beginning with the position of the verb, in Germanic syntax the verb-second verb is typically analyzed as appearing in the head of C. Further, it is often assumed that wh-words and focused constituents are located in the specifier of CP. If these two assumptions can be extended to Kashmiri, a number of the patterns summarized in (8) would be accounted for. At least two items could not be accommodated in a single CP, however: the topic phrase, and the subordinating particle ki, since both appear within the subordinate clause but to the left of the interrogative phrase. In what follows I will show that ki does not seem to behave like a complementizer, indicating that it should not also be hosted in the head of C. In the remainder of this section I will propose an alternative way of mapping out the Kashmiri left periphery.

The failure of a single CP in its traditional conception to encompass the left periphery of Kashmiri emphasizes the need for a coherent view of the verb-second position. The facts could be construed to support an approach in which the unmarked word order in Kashmiri [subject-verb-object] is derived by movement of the verb to T and the subject to the specifier of TP. Bhatt (1999) reports that the preverbal position is generally the focus position, and that elements in this position always bear focal stress. This would indicate that subjects are not necessarily in the specifier of some head containing focus features, but can instead be in a head unmarked with respect to focus. Putting these observations together, we are led to assume at least two heads. One (let us say T) to which finite verbs raise and in whose

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2 Clearly any approach that assumes that an SOV language produces a V2 structure must assume that while lexical heads are head-final, functional heads are head initial (see Bhatt, 1999, Roberts (date) for more information).

3 Bhatt also mentions that temporal adverbs do not appear stressed in this position. Why this is so is beyond the scope of this discussion.
specifier (unfocused) subjects appear, and a second, higher head which also attracts finite verbs and in whose specifier focused elements (including interrogative phrases) appear.

This last view of verb-second is similar to that offered in Zwart (1997). According to Zwart in Dutch (an in other Germanic languages) subject-initial main clauses do not involve movement to CP, as has often been assumed. Zwart also offers evidence against generalized V-to-C movement in Dutch, demonstrating that there is no clear motivation for assuming that the verb has always raised to C. From these considerations, Zwart concludes that the subject and verb in subject-initial main clauses in Dutch are not located in CP, but instead in AgrS, the highest head of the inflectional layer. He asserts that the only way a subject can move into the specifier of CP is if it is attracted by some feature of CP (e.g. a wh-feature) beyond that which involves the normal interaction with T. Only initial constituents that are wh-words or non-subjects are analyzed by Zwart as raising to a CP or higher phrase. It seems that this approach can also be applied to the verb-second facts of Kashmiri, as we have seen above.

The proposal I have outlined for verb-second in Kashmiri differs significantly from that offered in Bhatt (1999). Bhatt claims that verb-second crosslinguistically is the result of movement of the verb and some sentential constituent to a functional projection MoodP (MP). MP is a component of an exploded CP – a phrase that he asserts is universal across languages whether or not they possess explicit morphological mood markers (Kashmiri does not). Bhatt directly addresses Zwart's (1997) claims concerning Dutch V2, arguing against the approach primarily on theory-internal grounds. It seems that most or all of his concerns disappear when the proposal is updated along the lines of the Minimalist Program as it is presented in Chomsky (2000). The empirical argument he makes against Zwart's proposal involves subordinate clauses and complementizers in Swedish, and I will not address these issues here. The only mention of Kashmiri in Bhatt's discussion of Zwart's proposal is that under the view that only subject-initial sentences are not in CP, it would be difficult to explain that sentence-initial temporal adverbs in Kashmiri do not receive sentential (i.e. focal) stress. If there are other reasons why such adverbs may not receive sentential focus intonation, we can move forward in explaining why subjects behave differently from all other sentence-initial constituents – because (as in many languages) they may remain in Spec, TP. These issues are not part of my central focus here, and so I will proceed on the assumption that something like Zwart’s approach is correct for Kashmiri.

On the one hand it is clear that a more articulated vision of the left edge of the clause is needed – one that encompasses a hierarchy of relevant projections rather than a single projection. It is also clear that with greater articulation comes a need to break down the roles of the functional heads involved. I would like to suggest, following Rizzi (1997) and Davison (2003), that a theory such as this offers us one way to account for the Kashmiri left periphery, though see section 3.2 for an interesting alternative.

Let us return to the schematic of the structures to be accounted for in (8) above. In a typical declarative matrix clause the single preverbal position will be occupied by a focused element or a subject. Assuming that in subject-initial sentences the subject is in Spec, TP, in declarative clauses that are not subject-initial, the verb and focused element must be in some higher projection. Under the split-CP approach, a focused phrase moved to the left edge of the clause occupies the specifier of a Focus Phrase (FocP).
In an interrogative matrix clause, the preverbal position is necessarily occupied by a wh-word. Because wh-words also receive focus intonation and are mutually exclusive with a focused constituent, it is reasonable to assume that they occupy the same structural position, the specifier of FocP. A focus feature will be present on this head in both cases, causing both focused phrases and wh-phrases to be interpreted as focused. When the Focus head is projected, it attracts the finite verbs.

Just when the wh-word is present, an additional pre-wh constituent may occur which is interpreted as a Topic (Bhatt 1999), as in (6a), repeated here.

(6a) rajan kemis he: v nev kita:b?
    Raj whom showed new book
    ‘As for Raj, to whom did he show his new book?’

I will assume here that this material is located in a dedicated Topic Phrase, the distribution of which will be addressed further below.

So far we have described the range of possibilities in a matrix clause like (8a). A subordinate clause like that in (8b) differs only in that all of the above mentioned constituents can optionally be preceded by the subordinator ki. Notice that if we are committed to hosting the verb in verb-second clauses in the Focus head, and the wh-phrases and focused constituents in its specifier, the subordinator ki must precede these constituents. One obvious position to consider is the head which Rizzi calls Force, which hosts morphological material that determines the type of the clause to follow and appears at the far left edge of the clause. There are a number of reasons to believe that the subordinator ki is not a Force particle, however, and plays no role in determining the force of the clause it precedes.

First, ki is optional, and is never required in a subordinating construction. In fact, there are instances in which ki must not appear, such as when a clause is preposed.

(9) bi o:sus yi za:n: n ki seli:m gav ra:th rajas sit
    I aux this know that Selim went yesterday Raj with
    ‘I knew that Selim went with Raj yesterday.’

(10) (*ki) selim gav ra:th rajas sit yi o:sus bi za:n: n
    Selim went yesterday raj with this aux I know
    ‘Selim went with Raj yesterday; this I knew.’

If we can assume that the first clause in (10) is in fact a preposed subordinate clause, we can observe that since ki must not appear after preposing, it is not selected by the verb. Note that these facts are almost the mirror-image of those which hold of English that (considered a typical Force head).

(11) a. I know that Selim went with Raj yesterday.
    b. That Selim went with Raj yesterday I know.
    c. * Selim went with Raj yesterday I know.

Further support for this view of ki comes from the distribution of the yes-no question marker k’a. Although many Kashmiri speakers report that the yes-no question marker is not used, Davison (2003) claims that for O. Koul (p.c.) it is available (see also Wali and Koul 1997). For those speakers who can use this form of k’a (as in Hindi-Urdu),

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4 The pleonastic element yi ‘this’ or yi kath ‘this story/this fact’ can optionally appear in the matrix clause, but cannot be immediately followed by a subordinate clause.
we must assume it is a Force morpheme, marking the clausal type as a question. That it is found at the far left of a main clause supports this assumption.

(12) (k’a) mohnan :s-a: bul:-v-mts mi:ra:
    what Mohan-erg be-Q invite -perf Mira
    ‘Did Mohan invite Mira?’ (Wali and Koul, 1997)

The behavior of k’a in subordinate clauses is telling. For those speakers who can use it, k’a must follow the subordinating particle ki, as in Hindi-Urdu.

(13) tem prutS me [ki (k’a) mohnan :s-a: bul:-v-mts mi:ra:]
    3s-Erg asked me that what Mohan-erg be-Q invite -perf Mira
    ‘He asked me [if/whether Mohan invited Mira]’
    (Both ki and k’aa are possible, but not preferred – see Davison 2003)

This then supports a view in which ki is not in a Force head, but is instead even further to the left. There are two imaginable approaches to its distribution. The more conservative would be to locate ki in a position in the syntax. In this view, ki might occupy the head of a specifierless phrase (we could call it SubP), which is located above the ForceP. Of course, a number of questions arise, including whether this category has other members, and why the head does not seem to have semantic content. The head would, furthermore, have to be itself transparent to selection, in the sense that a governing predicate would have to ignore it and instead target the lower Force head (the locus of clause-typing information). These are not insurmountable problems, but they would require additional stipulation.

A second, somewhat more radical approach would be to claim that ki is not present in the syntactic derivation, but is instead a morphological marker of the phase edge - one that is inserted following spell-out. That is, the reason ki is not selected by the verb and seems to have no semantic content is that it is not actually present during the syntactic derivation. To describe this approach more formally, ki would be optionally inserted in each phase by the morphological component in the position between the V head and the material forming the edge of the immediately lower phase. In this way, ki serves as an audible marker of the boundary between one phase and another. This approach offers a clear explanation for the facts in (10), repeated here.

(10) (*ki) selim gav ra:th ra;jas sit yi o:sus bi za:na:n
    Selim went yesterday raj wth this aux I know
    ‘Selim went with Raj yesterday; this I knew’.

On a view in which ki occupies a syntactic head, its failure to appear in (15) would be a matter of stipulation. On the morphological account, however, ki would not be inserted by the morphological component in this position (or any other sentence-initial position for that matter) because it is not located in between a V head and the material on the edge of some lower phase. This approach to ki (and possibly other morphemes like it) deserves exploration in greater detail, but that is beyond the scope of this paper. For now I will tentatively adopt this approach, indicating the post-syntactic insertion of ki with an arrow. Let us now demonstrate how this body of proposals will function. In the subordinate clause of (14a) below, there are three phrases dominating TP. The Focus phrase contains a wh-phrase in its specifier, and the verb-second verb in its head. The Topic phrase contains the pre-wh constituent Mohan in its specifier. Finally the subordinator ki is inserted post-syntactically. The structure is in (14b).

We can make several immediate observations about the structure in (14b). First it happens that there is no morphological material that corresponds to the finiteness projection (FinP) which determines the finiteness of the clause to follow, nor is there material in the Force head position (as discussed, *ki* is not a Force head). Second, the left periphery as it is analyzed here is not a single projection (CP) but instead a series of projections. This will have important consequences for our understanding of the notion of derivational phases and phase edges that will be addressed further in section 3.1 below. The extent to which clause edge and the phase edge overlap will in part determine the accessibility of the constituents in the left periphery for interactions with material in higher clauses. Finally, this progression of projections, developed by Rizzi based on data from Romance and Germanic languages, seems to predict exactly the rigid ordering of the rich Kashmiri left periphery. This is a surprising result, given the distance that separates Kashmiri from these other languages. While the mechanisms that determine the actual typology of the C-system remain mysterious, the crosslinguistic regularities that this view codifies are impressive. We will view this phrase structure as a starting point for further discussion, and it will form the basis for the analysis of A-bar movement in the section to follow.  

3. Analyzing Full and Partial Wh-Movement in Kashmiri  

With an analysis of Kashmiri phrase structure in place, we can now take a closer look at wh-movement in Kashmiri, in particular full and partial movement from subordinate clauses. In section 3.1 I will present in detail a new approach to A-bar movement that accounts for the facts in Kashmiri. In 3.2, I contrast this account with previous approaches to partial movement constructions, indicating theoretical and empirical differences. Finally, section 3.3 suggests how the interpretation of partial movement constructions might proceed under the syntactic account proposed here.

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5 An alternative view of the organization of the left-periphery, in which a single C head hosts an array of feature bundles and has multiple specifiers, could also account for the data presented here, and may have represent an important theoretical improvement. See (____, in prep) for more details on this approach.
3.1 A New Account of A-bar movement

The data above demonstrated that in constituent questions at least one question word must appear before the verb in addition to some other optional constituent (the topic). Bridge verbs allow matrix scoping of question words in subordinate clauses via an invariant wh-expletive $k’a$, which appears in the pre-verbal position in the matrix clause. in (15). The behavior of non-bridge verbs with respect to extraction will be explored further below.

(15) tse $k’a$: chu-y ba:sa:n ki mohn-as kem’ dits kita:b
you what aux think that Mohan who gave book
‘Who do you think gave Mohan the book?’

Direct questions formed by full wh-extraction from the clausal complements of these non-factive verbs are also possible, as in (16).

(16) a. tse $k’a$:zi chuy ba:sa:n ki ra:jan a:sı ditsemıt; mohnas kitab
you why aux think that Raj aux gave Mohan book
‘Why do you think that Raj would have given the book to Mohan?’

b. mi:ra: $k’a$: chi yatsha:n ki su gotsh anun (Wali 2002)
Mira what aux want that he should bring
‘What does Mira want that he should bring?’

The current theoretical framework provides a feature-based understanding of A-movement. It is worthwhile to consider approaching A-bar movement in the same way. Following the spirit of the recent work of Simpson (2000) and Fanselow and Mahajan (2000), I argue that the analysis of these two systems can be unified, using Kashmiri as a test case for this hypothesis. I will show that both full extraction and partial wh-movement of question words in Kashmiri can be analyzed using a system of interpretable and uninterpretable features in a manner similar to the approach to the A-system.

The distinction between full extraction from subordinate clauses and partial wh-movement in Kashmiri can be analyzed as the distinction between the operations Move and static Agree to satisfy uninterpretable features. In the feature-based approach to A-movement, a nominal enters into an agreement relation with a higher accessible head. This Agree operation is simply a mutual exchange of information between a head and a nominal bearing the relevant features – an exchange of information which takes place in a particular structural configuration as follows:

(17) H .... $\alpha$ .... $\beta$
    a. H commands $\alpha$, which in turn commands $\beta$
    b. $\alpha$ is ‘closer to’ H than $\beta$

'Closer to' is defined in terms of asymmetric c-command. That is, $\alpha$ is 'closer to' H than $\beta$ iff H commands $\alpha$, $\alpha$ commands $\beta$, and $\beta$ does not command $\alpha$ ($\alpha$ commands $\beta$ iff $\beta$ is contained within the sister of $\alpha$). (Adger 2003).

In this configuration, it will be possible for the features of the head (the Probe) and those of the nominal (the Goal) to mutually value one another. If the required relation is not established, features remain unvalued, and the derivation will not result in a well-formed syntactic object. Once all of the features of an element are valued, the element is inactive, and its participation in head-nominal interactions will be limited.

Within the A-system, a nominal may Agree with a higher head, and may also raise if the probing head has the EPP property. This composite operation is called Move, and will be
defined here as Agree + pied-piping + 2nd Merge. If the EPP is not present, the uninterpretable features of the Probe and Goal may of course be valued by static Agree over a distance, as described above (Chomsky 2000). I also assume (following Chomsky 2001) that all and only uninterpretable features have unvalued instances when they enter the derivation.

The operations described above are constrained by locality considerations. Agree (and hence the composite operation built upon it, Move) can only take place within a phase. A phase is the unit in which derivations proceed. A Probe can only interact with Goals within its own phase or on the edge of the previous phase. Elements that are not within in the current phase (that are contained in previously constructed phases) are not available. For the purposes of this work, I will focus on the CP phase, though important work is being done of the relevance of the v-phase for wh-movement (Rackowski and Richards, 2005). At the end of this section I address more specifically how the notion of phase may be cached out under the split-CP view of the left periphery.

In this paper I will claim that the A-bar system of Kashmiri functions identically to the A system in these respects. Heads and wh-XPs will possess interpretable and uninterpretable features. If a higher probe possesses the EPP in addition to other features, an accessible wh-XP will undergo Move. Alternatively, if the wh-expletive *k’a* is in the numeration, the merging of *k’a* can satisfy the EPP on the Probe, much like an expletive in the A-system. If this occurs, the uninterpretable features on the A-bar probe will be valued by interacting with an accessible wh-XP via static Agree over some distance.

There are three features at work controlling movement and agreement in the A-bar system: the EPP (common to the A and A-bar systems), the [Q] feature, and the [wh] feature. The [wh] feature is interpretable on wh-XPs and uninterpretable on all heads, activating probes that interact with wh-XPs. The interpretable feature on wh-XPs is its "wh-hood"; what spurs the formation of a Reinhart (1998)-style choice function variable. The feature [Q] is uninterpretable on the wh-XP but present and interpretable on the highest head in an A-bar movement sequence. This interpretable [Q] feature marks the position at which a wh-XP will be interpreted. Like the category-defining features, it allows the hosting head to enter into selectional relations, and is interpreted as an unselective binder of (choice) function variables (Reinhart 1998). The role of these interpretable features will be further explored in section 3.3.

In a Kashmiri subordinate clause, a wh-XP must always move to the specifier of the Focus head containing the second-position verb. Wh-*in situ* is impossible except in instances of multiple wh-XPs (at least one wh-XP must raise). This means that the FocP which contains the second position verb in its head will necessarily possess an uninterpretable [wh] feature and the EPP in all interrogative clauses, both matrix and subordinate. It is the uninterpretable [wh] feature that makes the Foc an active Probe, and it is the EPP which requires that the wh-XP in its domain not only Agree but also Move into its specifier. Within an interrogative sentence comprised of a single clause, such as in (6a), repeated here, the Focus head will also possess the interpretable [Q] feature.

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6 The first merge is when element is merged into the ‘workspace’ from the numeration.
(6a) rajan kemis he:v nev kita:b?
    Raj whom showed new book
    ‘To whom did Raj show his new book?’
The presence of the interpretable [Q] feature signals the position at which the scope of
the wh-XP will be interpreted. This feature will value the uninterpretable [Q] feature on
the wh-XP, and will both arrest the movement of the wh-XP and allow the sentence to be
a well-formed syntactic object (with no unvalued uninterpretable features). In addition,
the scope of the wh-XP is determined at the position of the interpretable [Q] feature.

The goal of this section is ultimately to describe extraction and partial wh-movement
in Kashmiri subordinate clauses, so let us now consider a clause that is embedded. In this
scenario, the wh-XP may not remain in the lower clause, but instead must raise all the
way to matrix scope position, as in (1), repeated here.

(1)  tse kem' chu-y ba:sa:n ki mohn-as dits kita:b
    you who aux think that Mohan gave book
    ‘Who do you think gave Mohan the book?’
In a sentence like (1), the subordinate Focus head will lack an interpretable [Q] feature. A
wh-XP that has raised to the specifier of this FocP will still have uninterpretable features
that require valuing. The wh-XP in the specifier of the subordinate FocP will be in the
same phase as the matrix Focus head. The matrix Focus head will have an uninterpretable
[wh] feature, the EPP, and the interpretable [Q] feature, just as in (5). As a Probe, it will
find the wh-XP in the specifier of the subordinate FocP and will enter into an Agree
relation and Move with this wh-XP and attract it to its specifier. The wh-XP will raise to
the specifier of the matrix FocP, and the result will be full extraction. The particle ki is
inserted post-syntactically, as discussed in section 2 and indicated by an arrow. This
process and the features involved are diagramed in (18).

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(18) represents the extraction of the wh-XP and its passage through the specifier of the subordinate FocP into the matrix FocP.

An obvious question arises at this point. If static Agree is an option, why can't the uninterpretable feature of the wh-XP be valued by the matrix-Focus head while it remains in the specifier of subordinate FocP? In this case, if there is no wh-expletive in the numeration and if the EPP on the matrix Focus head must be satisfied by a [wh]-bearing element, the EPP would not be satisfied, and the derivation would therefore crash.

Let us now turn to a grammatical instance of partial wh-movement in Kashmiri as in (2).

(2) tse k’a: chu-y bu:sa:n ki mohn-as kem’ dits kita:b
    you expl aux think that Mohan who gave book
    ‘Who do you think gave Mohan the book?’

In a partial movement construction, the subordinate Focus head will once again have only an uninterpretable [wh] feature and the [EPP]. The numeration contains a wh-expletive k’a, which can be merged to satisfy the EPP on the matrix Focus Probe. This expletive differs from a full wh-XP in its feature content. As an expletive, it consists entirely of uninterpretable features, and contributes to the syntactic computation only an (uninterpretable) interrogative feature (written Q-\textit{u} here). This understanding of the wh-expletive has two consequences: (i) the expletive may appear only in questions (ii) since it lacks a wh-feature altogether, it cannot render inactive the probe in whose specifier it is merged. As a result, the matrix Focus head will still need to value its uninterpretable [wh] feature, and will therefore probe its domain. It finds the wh-XP in the specifier of the subordinate Focus head, and will enter into static Agree with it. In this way, all uninterpretable features are valued, and wh-expletives in the A-bar system serve the same purpose as expletives in the A-system – to satisfy the EPP and permit the head's features to be valued statically by some other accessible element (Simpson 2000). This process is diagramed in (19).
One might ask if there is further movement to a higher specifier position above the focus position. Given that the element *ki* seems to mark phase edges, and given that wh-phrases always appear to the right of that element, we know only that overt wh-phrases (expletive or contentful) appear in the phase edge. However, if there were further raising within the lower CP-layer, one might expect to find contentful wh-phrases to the left of a topic. This however is impossible.

(20) *tse k’a: chu-y ba:sa:n kem’ ki mohn-as dits kita:b
    you expl aux think who that Mohan gave book
    Intended: ‘Who do you think gave Mohan the book?’

The analysis outlined above provides an account for both full and partial wh-movement in Kashmiri, but some questions remain. Consider the ungrammaticality of (21a), or its equivalent in German, (21b).

(21) a. *rajan k’a: he:v kemis nev kita:b?
    Raj expl showed who new book
    Intended: ‘To whom did Raj show his new book?’

b. *Was glaubst du was?
    expl believe you what?
    Intended: ‘What do you believe?’

In such cases, a wh-expletive is in the same clause as the full wh-XP whose scopal position it indicates. If, as we have explained above, an expletive can be merged into Spec, FocP to satisfy the EPP and the uninterruptible [wh] feature on the Focus head can be valued via static Agree with a wh-XP in its phase, there should be no problem with (21a-b). It seems that wh-expletives, unlike DP-expletives, are constrained by a kind of
anti-locality. Compare the wh-expletives in (21) with the English DP-expletive there, in (22), which can appear in the same clause as its DP associate.

(22) There are three unicorns in the garden.

Simpson (2000), along with Horvath (1997) and Fanselow and Mahajan (2000), claims that the anti-locality property of wh-expletives can actually be reduced to a question of case. If the wh-expletive in fact needs case just like any other wh-XP, it must actually be merged into a case position in a sentence like (21a). However, this is not possible, because the full wh-XP has occupied the relevant position and received this case.\(^7\) The wh-expletive’s need for case for case will block instances like (21a), in which the case is instead being assigned to the full wh-phrase kemis ‘who’, but permit (2) in which there is no competitor for case in the matrix clause.

(2) tse k’a: chu-y ba:sa:n ki mohn-as kem’ dits kita:b
   you expl aux think that Mohan who gave book
   ‘Who do you think gave Mohan the book?’

Further empirical support for this view comes from Kashmiri and the related language Hindi-Urdu. In addition to k’a, Kashmiri has a pleonastic element yi that can be optionally inserted into a matrix clause such as in (9), repeated here.

(9) bi:o:sus yi za:na:n ki seli:m gav ra:th rajas sit
   I aux this know that Selim went yesterday Raj with
   ‘I knew that Selim went with Raj yesterday.’

A similar construction exists in Hindi-Urdu, as shown in (23).

(23) Miriam yeh jantaa hai ki Haroun kis-se baat karegii.
    Miriam this know aux that Haroun who-with talk aux
    ‘Miriam knows who Haroun will talk to.’

In both Hindi-Urdu and Kashmiri the expletive object (yi or yeh) cannot coexist with a wh-expletive, suggesting that they occupy the same case position in the clause.

(24) *Sita-ne yeh kyaa socaa ki ravi-ne kis-ko dekhaa? [H-U]
    Sita this expl thought that ravi who saw
    Intended: ‘Who did Sita think that Ravi saw?’

Now let us turn to the position at which the wh-expletive is first introduced in the clause. Simpson (2000) claims that wh-expletives are base generated in the specifier of the agreement projection AgrO, and when other DPs are present which need to check case in this position, it will not be possible to generate the wh-expletive. This would rule out examples like (21) and (24), in which another wh-DP or the expletive object yeh must occupy this position. Updating this view to reflect the framework of this paper, we need to ensure that the wh-expletive is base generated in a position at which it can have accusative case valued; that is, within the c-command domain of the accusative case licenser transitive v. Further, we know that the wh-expletive is not a semantic argument of any predicate (having no interpretable features) and cannot be introduced by semantic selection. For this reason, the wh-expletive must be merged into the specifier of a head that has the EPP property. The EPP is a quasi-selectional feature which causes the head to seek an additional specifier beyond those it needs to satisfy selectional requirements.

\(^7\) Note that the need for DP case would not alter the status of k’a or was as a wh-expletive. It is still defective in the sense that it cannot value the uninterpretable features on the C head to whose specifier it raises. This will force the uninterpretable [wh] feature on the c head to seek another wh-XP with which to interact.
Aspect is a functional head in the c-command domain of $v$ on which it would be reasonable to posit the EPP property. AspectP is the projection claimed to introduce aspect morphology, such as the perfective suffix -mut on the Kashmiri past verbal stem (Travis, 1991). The wh-expletive introduced into the specifier of AspP has three features: an uninterpretable D feature, an uninterpretable case feature (accusative), and the uninterpretable Q feature. Note that it has no interpretable features at all. When the transitive $v$ is introduced, it will interact with the wh-expletive and the expletive’s uninterpretable accusative case feature and [D] feature will be valued. By the time the Focus head is introduced, the wh-expletive has only an unvalued uninterpretable [Q] feature remaining, and will interact with the Focus head in the way described above.

In this view, examples like (21) and (24) are impossible because only one goal can interact with the $v$ head and have its uninterpretable case feature valued. If there is more than one potential goal, such as an additional wh-phrase or a clausal expletive, the uninterpretable case feature on one or the other will go unvalued, and the derivation will fail to converge.

Observations about Hungarian provided by Horvath (1997) offer additional empirical evidence for this proposal. The wh-expletive in the matrix clause actually exhibits case morphology appropriate to its role in relation to the matrix verb, and the wh-XP in the subordinate clause is assigned a separate case, determined by properties of the embedded clause, as expected.

(25) Mit mondta hogy kinek vett Janos színházjegyet?
   what-acc said that who-dat bought John theatre ticket-acc
   ‘Who did you say John bought a theatre ticket for?’

Horvath originally intended this data to argue against the so-called ‘direct dependency’, or chain-based, approaches to partial wh-movement, claiming that the chain itself could not be assigned different cases at its head and tail. Note that under the analysis outlined here, (25) would not pose such a problem, because the wh-XP and wh-expletive are not syntactically connected, and can therefore be assigned different cases as necessary.

The ramifications of the claim that wh-expletives (at least in some languages) need case go beyond explaining the ungrammaticality of the sentences in (21). Chomsky (1995, 2000) asserts that the operation Merge, in which an element is simply merged into the structure, is more economical than Move, the composite operation which involves Agree, pied-piping, and second Merge combined. A sentence like (27) below is barred because in the derivation of the clause to be a man in the garden, there are two choices if the numeration contains an expletive. The first is to Merge the expletive there (later raising it further) as in (26). The second is to Move the DP a man and postpone Merging the expletive, as in (27). (27) is ungrammatical because the less economical operation was chosen during the derivation.

(26) There seems [t to be a man in the garden].
(27) *There seems [[a man] to be t in the garden].

Returning to wh-expletives, if a wh-expletive simply merged into the specifier of FocP, this will always be more economical than moving a full wh-XP. According to Simpson (2000), the ungrammaticality of (28a-b) demonstrates that wh-expletives are not simply merged into a wh-position.
If Merging of a wh-expletive was more economical than Moving the wh-XP into the lower Spec, FocP, we would expect (28a-b) to be possible, on par with (23). However, if we accept that was as a wh-expletive must be assigned case, it would not be possible to generate it in the subordinate clauses in (28) in which all available cases have been assigned to full wh-XPs. This is an extension of the account of (21).

Simply stipulating anti-locality as a requirement ("an expletive and any full wh-XP cannot be clausemates") cannot be adequate, since it is possible for a full wh-XP to appear in the same clause as the wh-expletive if the full wh-XP is a subject. In this case, the matrix wh-expletive is indicating the position of interpretation of the wh-XP in the lower clause, and has nothing to do with the wh-XP in the matrix clause. This construction is exhibited in German by (29) (originally from Fanselow and Mahajan (1996)) and in Hindi-Urdu by (30).

(29) Was glaubt wer wen sie liebt
Expl believe who whom she loves
‘Who believes she loves whom?’

(30) kis-ne kya socaa ki aap-ne kya paRhe?
who expl thought that you what read
‘Who thinks you read what?’

As long as the wh-expletive is being assigned a DP case separate from that of the full wh-XP in the same clause the construction is grammatical.

A second question that has not yet been resolved is how this analysis interacts with the notion of the phase. Under the canonical view, a CP is a phase, and the material in the C head and in Spec, CP are on the edge of that phase. Goals at a phase edge remain available to Probes in a higher phase, whereas Goals more deeply embedded within a phase do not. In (18) and (19), the left periphery of each clause consists not of a single CP projection, but a series of projections with specific roles associated with each. Yet we know that the wh-XP in the specifier of the lower FocusP in (19) is certainly available to Probes (namely the matrix Focus head) in the higher phase. This leads us to assume that in a view in which the left periphery is expanded, it is not necessarily the highest projection of a given phase (in this case Force) that defines the phase. If this were the case, the wh-XP in (19) would not be accessible to higher Probes, not being on the phase edge. Instead, we are pushed to explore a notion of phase in which the phase edge is comprised of all of the projections of the left periphery. That is, the series of projections from ForceP to FiniteP, and everything contained in their heads and specifiers, is on the phase boundary and is open to interaction with material in the higher phase.

In some ways, this is a problematic notion compared with the explicit conception of the phase under the single CP view. Alternatives are available. It could be maintained

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8 There has been some discussion about the grammatically of (29). While Dayal (1994) previous claims that this sentence is ungrammatical, both Simpson (2000) and Beck and Berman (2000) indicate that this sentence is grammatical or nearly so for most speakers.
that the left-periphery is defined by a single, phase-defining head associated with multiple specifiers. Some mechanism would be needed to ensure the correct ordering of specifiers (an ordering of the features on C perhaps). In this view, parametric variation would be controlled by the featural content of the phase-defining head (a welcome result). These possibilities are explored more fully in ____ (forthcoming). For present purposes, we can work with either conception of the left periphery.

To summarize this section, the analysis presented here accounts for both full wh-movement in Kashmiri as in (1) and partial wh-movement as in (2). I have proposed that the two strategies for construing matrix scope for embedded wh-XPs differ only in their numerations. If an expletive is present, it will be merged into a case position in the matrix clause and will raise to the matrix Spec, FocP, allowing the features of the lower wh-XP to be valued via static agreement over a distance. If the expletive is not present, the wh-XP will itself raise to value the features on the matrix Focus head. Either way, it will be the wh-XP from the embedded clause that will value the matrix Focus features.

3.2 Previous Approaches to Wh-expletive Constructions

The account presented in 3.1 departs significantly from previous approaches, offering theoretical and empirical advantages. I will briefly review the two types of analyses previously proposed for partial wh-movement, indirect dependency and direct dependency, and will detail how they are distinct from one another and from the account presented here.

Indirect dependency approaches to partial movement constructions generally follow the account of Hindi-Urdu first proposed by Dayal (1994). The core claim of this proposal is that all apparently subordinate clauses in Hindi-Urdu are in fact adjunction structures, and that what we have called a wh-expletive in this paper is in fact a scope-marker that is coindexed with the adjoined CP. The process of semantic interpretation proposed by Dayal allows the scope of the wh-XP to be interpreted at the position of the scope-marker. Dayal referred to this as 'indirect dependency' to contrast it with chain-based, 'direct dependency' approaches which rely on syntactic connections between the wh-expletive and the full wh-XP (these will be discussed in greater detail below).

The indirect dependency approach argues that the finite CP that is normally viewed as a subordinate clause is not actually in a complement position, but is instead generated adjoined to the matrix IP or CP. The complement position of the main verb is instead occupied by an expletive. The expletive and the adjoined CP are coindexed. Since Hindi-Urdu is an SOV language, in this approach the pre-verbal position that the wh-expletive occupies appears to also be the canonical object position. According to Dayal, Hindi-Urdu wh-XPs raise at LF, creating two local wh-dependencies in a two-clause partial movement construction. The first is due to the LF movement of the full wh-phrase to the specifier of the adjoined CP, and the second to the LF movement of the wh-expletive kyaa to the specifier of the matrix CP. Since the expletive and the adjoined CP are related by coindexation, the net result gives the effect of a long-distance dependency. The LF structure this process would produce for (31a) is represented in (31b).

(31) a. sita-ne kyaa socaa ki ravi-ne kis-ko dekhaa
   sita-erg expl thought that Ravi-erg who-acc saw
   ‘Who does Sita think Ravi saw?’
   b. [\textsc{cp} kyaa _1 [ [\textsc{ip} sita-ne _1 socaa] [\textsc{cp} ki kis-k_2 ravi-ne _2 dekhaa] _1 ]]
This view achieves the effect of interpreting the full wh-XP on the left periphery of the matrix clause because that is where the entire adjoined CP will be interpreted. Dayal extends this approach to German question formation, resulting in a nearly identical LF for German wh-expletive constructions.

The indirect dependency approach raises a number of questions, both theoretical and empirical. Perhaps the most unusual claim of this approach is that what is normally viewed as an embedded CP is in fact adjoined to the matrix CP. If this is in fact the case, we should expect that interactions between the clauses that rely on command relations should not apply. For instance, it should not be possible for quantifiers in the matrix to bind variables in the adjoined CP, since no command relation pertains between the clauses. In Hindi-Urdu wh-expletive constructions like (32) it does appear that the quantifier har aadmii ‘each man’ in the matrix clause in can bind the pronoun us-ne ‘he’ in the second CP (Mahajan, 2000).

(32) Har a:dmi:-ne kya: soca: ki us-ne kis-ko dekha:.
   each man-erg expl thinks that he-erg who saw
   ‘Who did every man, think that he, saw?’

Under the indirect dependency approach, the bound variable reading in (37) is unexpected.

Along these same lines, Beck and Berman (2000) point out that if German clauses containing expletives was and es cause their complements to be adjoined, then the binding in (32) should be impossible.

(33) ..., daß [keine Studentin] es bedauert, daß sie die Vorlesung geschwänzt hat
    that no student it regrets that she the lecture skipped has
    ‘... that no student regrets it that she has skipped the lecture.’

Again, since the embedded clause would hypothetically be adjoined to the first CP, the matrix subject should not c-command any material within it, and this binding would be ruled out. On a more theoretical note, the origin of the coindexation of the wh-expletive (and the free variable it is translated as) with the embedded wh-clause is unclear. There appears to be no motivation beyond achieving the correct interpretation of the adjoined CP since, as Beck and Berman point out, the indexation is neither referential nor anaphoric. Further, if we are to explore the viability of the Strong Minimalist thesis for language, the Inclusiveness Condition requires that no new features be introduced in the course of a derivation (Chomsky 2000, p. 113). Indices and coindexation of any kind become unavailable in this view. Of course, this condition would also be problematic for incarnations of the direct dependency approach that rely on syntactic chains established between wh-items to arrive at the appropriate connections within the structure.

The account proposed in this paper follows the indirect dependency approach in assuming that the wh-expletive is base generated in a position inside the clause in which it is assigned case. This claim was supported by evidence of various kinds in section 3.1. However, it departs strongly from the indirect dependency view in that the role of the wh-expletive is taken to be syntactic only, and the wh-expletive does not play a role in the semantic interpretation of the question (for more on this point, see section 3.3).

It may seem, then, that the account presented here has more in common with direct dependency approaches, but this is probably misleading. The representative direct dependency approach to partial wh-movement and wh-expletive constructions is McDaniel’s (1989) account of German and Romani. In this account, a syntactic wh-chain
with a specific set of well-formedness conditions connects a wh-XP and its trace with a wh-expletive. McDaniel claims that the unique properties of wh-expletive constructions can be explained if Subjacency is considered to be a condition on representations (not just movement). This type of analysis seems especially geared toward wh-expletive constructions of three clauses or more, as discussed in 4.2 below.

The direct dependency approach attempts to codify the notion that full and partial wh-movement are different manifestations of the same phenomenon. Under an account of this kind, both full movement and wh-expletive constructions result in chains with similar (though not identical) well-formedness conditions. This is a view shared by the approach proposed here, though it is encoded in a very different way. In this case each head in a series of clauses in a matrix question must have its features valued and EPP satisfied. This can be accomplished either via movement, or via wh-expletive insertion depending on the numeration; the end result is essentially the same. In the indirect dependency approach, on the other hand, full wh-movement constructions are a syntactic phenomenon, while wh-expletive constructions are not. That is, the crucial role played by a wh-expletive itself is a semantic one. These two question formation strategies are viewed as totally distinct. The claim, on the other hand, that both full wh-movement and wh-expletive constructions are manifestations of the workings of the same set of mechanisms is something that the direct dependency account and the account presented here share.

In the approach in 3.1, a connection is made in the syntax between the position at which the wh-XP will be interpreted and the wh-XP itself. It is the features of the full wh-XP in a sentence like (2) which value the uninterpretable features of the head in the matrix position where the wh-XP will be interpreted. Unlike the direct dependency view, however, there is no link made between the wh-expletive and the full wh-XP. The connection that is forged makes use of neither chain nor index and is effected in the course of normal syntactic processes, requiring no additional motivation or stipulation beyond the routine mechanisms of featural satisfaction and associated movement.

This feature-based approach permits an important simplification over chain-based direct dependency approaches. McDaniel's account requires a stipulation contained in the wellformedness condition on chains to ensure that wh-expletives appear only above the full wh-XPs whose scope they indicate in syntactic structure. This is stated in (34):

\[(34) \text{for any scope-marker } a_i, 1 < i < n, (a_{i+1}, \ldots, a_{n-1}) \text{ contains a true wh-phrase (McDaniel 1989, p. 580)}\]

In the account presented in section 4, it follows automatically that wh-expletives will only occur in clauses higher that the one hosting the wh-XP whose scope they mark. More precisely, the feature-based system requires that something with a wh-feature appear in the domain of the lowest interrogative Focus head. This is because this head possesses an uninterpretable [wh] feature. Wh-expletives do not have a [wh] feature at all (by definition), so if a wh-expletive is the only wh-material to appear in the domain of the lowest interrogative head, the uninterpretable [wh] feature on that head will remain unvalued. In this case the derivation will crash. This result is achieved without additional stipulation in the feature-based approach.

3.3 Interpreting wh-expletive constructions
This section is intended to suggest an approach to the semantic interpretation of wh-expletive constructions that is compatible with the syntactic analysis presented above. The requirement imposed on such an approach is that the wh-expletive, which has no interpretable features at all, plays no role in the matrix interpretation of embedded wh-XPs. Only those elements of the A-bar system with interpretable features can be relevant for interpretation, since all uninterpretable features are deleted by the conclusion of the derivation. These elements are the matrix Focus head, which hosts an interpretable [Q] feature, and the wh-XP itself, which possesses an interpretable [wh] feature.

Reinhart (1998) proposes a mechanism for binding wh-in-situ constituents that is meant to be compatible with the general architecture of the Minimalist Program. In that vein, it seeks to eliminate the need for movement at LF to achieve wide scope, and instead proposes that these constituents must be interpretable in-situ. I will not attempt a rigorous application of this analysis here, but instead show that it represents a way of looking at long-distance wh-dependencies that can accommodate the feature-based syntactic account of wh-expletive constructions developed here.

Reinhart follows Karttunen (1977) in assuming that a wh-NP is simply an existential NP, and a question denotes the set of (true) propositions that are its answers. She claims that the question operator (at the position at which the scope of the question will be interpreted) serves as existential quantification over a choice function. The wh-word, and in fact any weak determiner, acts as a (choice) function variable applying to the set denoted by the NP. This variable can be bound by an existential operator that may be arbitrarily far away. In this way, wide-scope interpretation can be assigned to in-situ wh-constituents.

This proposal is clearly compatible with the syntactic approach put forward above. In this view, the interpretable [Q] feature on the matrix (or highest relevant) Focus head is interpreted as existential quantification over a choice function. The interpretable [wh] feature is a choice function variable that applies to a given set. For the wh-expletive construction in (2), repeated here as (35), the relevant portion of the interpretation is sketched in (36).

\[(35)\] tse k'a: chu-y ba:sa:n ki mohn-as kem' dits kita:b
\[\text{you expl aux think that Mohan who gave book}\]
\[\text{‘Who do you think gave Mohan the book?’}\]

\[(36)\] \{P | (\exists f) (CH(f) \& you think that f(x | animate(x)) gave Mohan the book)\}^9

In this case, the [Q-i] in the matrix clause provides existential quantification over a choice function, binding the function variable provided by the [wh-i] of the wh-NP\(^{10}\). This question then denotes the set of true propositions P, each stating that for some choice function f that you think that the animate being selected by f gave Mohan the book. This binding can occur over an arbitrarily long distance, so it should not matter how deeply embedded the full wh-XP is.

I propose that we view this framework as a jumping off point, and view unselective existential binding of choice functions as a valid way of interpreting the structures provided by this syntactic analysis. Another kind of question now arises of

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9 Reinhart assumes that pronominal wh-phrases such as who are determiners with empty nouns: [who \[N_{e(i)}\]]
10 The interpretable [Q] feature also seems to be what establishes the set of propositions.
course: if the wh-expletives are irrelevant for effecting the matrix scope interpretation of the wh-XP, why are they present? The analysis presented above makes clear that the role of the wh-expletive is solely a syntactic one. It fulfills the syntactic requirement we have labeled with the name EPP – that certain heads require additional specifiers beyond those needed for selectional purposes. The appearance of these wh-expletives is not a semantic requirement, as the system of interpretation has no need for intermediate material to effect the matrix scope reading.

4. Remaining Issues
There are several questions concerning wh-expletive constructions that remain to be discussed. The first question is a Kashmiri-internal one, and its solution does not bear significantly on the analysis presented above. The second question is crosslinguistic in nature, and has ramifications for the wider study of wh-expletives across languages and dialects.

4.1 A Kashmiri Question: Factive Predicates
Bhatt (1999) claims, and my informants agree, that full wh-movement is not possible from clauses that follow non-bridge verbs in Kashmiri, but wh-expletive constructions are generally permitted (compared with the grammatical bridge verb versions of these sentences in (1)-(2)).

(37) a. *k’aa cha mi:ra:yi khabar ki t mohnan por.
   what aux Mira know that Mohan read
   Intended: ‘What does Mira know that Mohan read?’
   b. k’aa cha mi:ra:yi khabar ki k’aa mohnan por.
   expl aux Mira know that what Mohan read
   ‘What does Mira know that Mohan read?’

Others (namely Wali and Koul 1997) have claimed that wh-expletive constructions are also impossible in factive contexts, and that (37b) is ungrammatical. It is clear that there is further empirical work to be done here, but presuming for the moment that the judgments in (37) are correct, we can explore several ways of accounting for them. Bhatt (1999) has proposed that subordinate clauses out of which extraction is impossible in Kashmiri are in fact adjoined to the matrix clause. The entire structure would be as in (38).

(38)
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CP          CP
  mi:ra:yi cha khabar   ki k’a: por mohnan
  Mira aux knows       that what read Mohan.
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In this view, wh-movement will not be possible between the two clauses because the first CP fails to command the second. There is, however, an approach to the structure in (38) in which k’a could be viewed as marking the scope of the wh-XP in the adjoined clause. This approach, along the lines of Dayal (1996), was already addressed in section 3.2.
Suffice it to say here that under such an "indirect dependency" approach one could obtain the contrast in (37).

On the other hand, binding facts in Kashmiri once again indicate that a hierarchical relationship obtains between the matrix and complement clauses of both factive and non-factive predicates.

(39) a. har insan chu basan ki su chu te:z.
   each man aux thinks that he aux smart
   ‘Each man thinks that he is smart.’

b. har insan chu pata: ki su chu te:z.
   each man aux knows that he aux smart
   ‘Each man knows that he is smart.’

In both sentences in (39), har insan binds the pronoun in the lower clause, indicating that it commands the pronoun. This should not be possible if the structure of the factive sentence was as in (38).

An alternative solution to this puzzle could be related to the fact that factive verb complements are weak islands in other languages.

(40) a. How do you think he escaped the building?

b. *How do you regret he escaped the building? (on matrix reading)

Assuming the wh-expletive construction to be an instance of the operation Agree (simplex), Agree may be able to obtain across weak island boundaries even though Movement (complex) is impossible across those same boundaries. Clearly this notion needs further work and formalization, but in light of the facts in (37) it seems more promising than an adjunction account. Moreover, the controversial nature of the data as it is reported in the literature indicates that further empirical investigation is required.

4.2 A Crosslinguistic Question: Multiple wh-expletives

The crosslinguistic question that remains to be examined is centered on wh-questions consisting of more than two clauses. In German, Hindi-Urdu, and Kashmiri, an embedded wh-XP can take scope across any number of clauses so long as this is mediated by a wh-expletive in every clause higher than the clause containing the wh-XP.

(41) a. Was glaubst du, was Jan meint, mit wem Ann gesprochen hat
   Expl believe you expl Jan think, with whom Ann talked has
   ‘Who do you believe Jan thinks Ann talked with?’ [G]

b. *Was glaubst du, Jan meint, mit wem Ann gesprochen hat?

(42) a. Ram-ne kyaa socaa ki ravi-ne kyaa kahaa ki kon sa aadmii aayaa
   Ram expl think that Ravi expl said that which man came
   ‘Which man did Ram think that Ravi said came?’ [HU]

b. *Ram-ne kyaa socaa ki raviii-ne kahaa ki kon sa aadmii aayaa

(43) a. Raman k’a von ki tse k’a: chu-y ba:sa:n ki mohn-as kem’ dits kita:b?
   Ram expl said that you expl aux think that Mohan who gave book
   ‘Who did Ram say you think Mohan gave the book to?’ [K]

b. * Raman k’a von ki tse chu-y ba:sa:n ki mohn-as kem’ dits kita:b

In (41a), (42a), and (43a) the wh-XP has undergone partial movement to the left periphery of the lowest clause. A wh-expletive is present in both the intermediate and matrix clauses, and a matrix interpretation of the wh-XP results. The ungrammatical examples, (41b), (42b), and (43b) are identical, except that they lack a wh-expletive in
the intermediate clause. It seems that a wh-expletive must be present in every clause above the clause hosting the wh-XP, up to and including the clause in which the wh-XP is interpreted.

The first question is how to account for the core pattern: the obligatory presence of an expletive in each clause above the clause containing the wh-phrase. The partial movement of the wh-XP in examples like (43b) is explained just as it is in two-clause structures: in this way the EPP property of the lowest Focus head is satisfied, and the wh-phrase becomes accessible to higher probes which will value its remaining features. If the wh-XP remains in this low position however, the EPP on all higher probes must be satisfied by a wh-expletive. If an expletive is missing in any of these positions, the EPP will not be satisfied on the Focus head in that clause. Upon the insertion of an expletive, this Focus head will still have features that need to be valued by Agree. It can do so by probing the lower phase edge and interacting with features found there. In what follows I will make this account more explicit.

Consider the three possible ways of forming a three-clause wh-question in Kashmiri in which the wh-XP originating in the lowest clause takes scope over the entire sentence.

(44) Raman kem von ki tse chu-y ba:sa:n ki mohn-as dits kita:b?
    Ram who said that you aux think that Mohan gave book
    ‘Who did Ram say you think Mohan gave the book to?’

(45) Raman k’a von ki tse kem’ chu-y ba:sa:n ki mohn-as dits kita:b?
    Ram expl said that you who aux think that Mohan gave book
    ‘Who did Ram say you think Mohan gave the book to?’

(46) Raman k’a von ki tse k’a: chu-y ba:sa:n ki mohn-as kem’ dits kita:b?
    Ram expl said that you expl aux think that Mohan who gave book
    ‘Who did Ram say you think Mohan gave the book to?’

(44)-(46) illustrate the three different ways to ask the matrix question ‘Who did Raman say you think Mohan gave the book to?’. In (44) we have full wh-movement from the base position in the lower clause (indirect object of dits ‘gave’), to the canonical wh-position in the matrix clause, preceding the second-position verb. In (45), the wh-XP has moved up only one clause, to the preverbal position in the intermediate clause, and a wh-expletive occupies the wh-position in the matrix clause. Below I will demonstrate that this case, not surprisingly, reduces to the analysis given to two-clause wh-expletive constructions. In (46), the wh-XP has moved only to the left periphery of its own clause. A wh-expletive occupies the wh-position in both the intermediate and matrix clauses. This construction will be the focus of this account.

In the case of full wh-movement, as found in (44), this approach would offer the relatively straightforward account outlined in the diagram in (47).

(47) [wh-XP [Focus1 …][t [Focus2] …][t [Focus3] … t]
     [Q-u]  [Q –i]  [wh-u]  [wh-u]
     [wh-i]  [wh-u]  [EPP]  [EPP]

The wh-XP that originates inside the lowest clause is an active goal. The Focus head on the left periphery of this clause (Focus3) is an active Probe. The wh-XP raises into its specifier, valuing its uninterpretable [wh] feature and satisfying the EPP. As it is on the edge of the lowest phase, it is visible for interactions in the next phase up, where the
process is repeated with Focus2. The wh-XP is still an active goal because its uninterpretable [Q] feature has not yet been valued. When the wh-XP raises into the head of Focus1, this [Q] feature is valued. At this point, all uninterpretable features in the derivation have been valued, and the derivation is licit.

The sentence in (45) is a mixed case, in which a part functions just like the full wh-movement described above, and a part functions like a wh-expletive construction. This process is diagrammed in (48).

\[
(48) \text{[wh-expl [Focus1 \ldots t] [wh-XP [Focus2] \ldots t] [t [Focus3] \ldots t]} [Q-u] [Q-i] [Q-u] [Q-u] [wh-u] [wh-u] [EPP] [EPP] [EPP]
\]

In (48), the wh-XP raises from the lowest to the intermediate clause in the same manner described above in (47). However in (48), a wh-expletive is present in the numeration and is introduced in a case position inside the matrix clause. Focus1 is an active Probe and finds the wh-expletive that is an active Goal. The wh-expletive moves into the specifier of Focus1, and its single uninterpretable feature is valued. The EPP on Focus1 is satisfied, but is own uninterpretable [wh] feature has yet to be valued. Focus1 probes its domain once more and find the full wh-XP at the left edge of the lower phase. The wh-XP is still an active goal, because its [Q-u] is still unvalued. Focus1 and the wh-XP Agree with one another, mutually valuing one another’s uninterpretable features and creating a licit derivation. The second part of this derivation is identical to the way in which a two-clause wh-question is analyzed.

A third possible way to form a three-clause matrix question in Kashmiri is to permit the wh-XP to remain in the lowest clause by employing wh-expletives in both the intermediate and matrix clauses, as in (46). The analysis that has been described here would give (46) the structure described by the schematic in (49).

\[
(49) \text{[wh-expl [Focus1 \ldots t] [wh-expl [Focus2] \ldots t] [wh-XP[Focus3] \ldots t]} [Q-u] [Q-i] [Q-u] [Q-u] [wh-u] [wh-u] [wh-u] [wh-i] [EPP] [EPP]
\]

Let us walk through each step of (49) carefully, as this construction is the focus of this section. The initial step of (49) is identical to that in (47) and (48), in which the wh-XP moves from its base position into the specifier of the lowest Focus head. The EPP on Focus3 is satisfied, and its single uninterpretable feature is valued. The wh-XP, on the other hand, remains active. In the intermediate clause, the Focus2 head probes its domain and finds the wh-expletive. The expletive moves into the specifier of Focus2 and satisfies the EPP while valuing its own uninterpretable [Q] feature. Though this wh-expletive is now inactive, the Focus2 head still has an unvalued uninterpretable [wh] feature. It probes its domain once again and interacts with the wh-XP at the left edge of the phase below. The Focus2 head and the wh-XP mutually value one another’s features. The derivation continues in the matrix clause, in which the Focus1 head interacts with the wh-expletive originating in its own clause, and the process proceeds as above. The Focus1 head must then probe its domain again, as it is still active, and find the valued [wh] feature on the Focus2 head with which to value its own [wh] feature. At this point all uninterpretable features have been valued, and the derivation is licit.
Notice that the wh-expletives in (49) do not interact with the wh-XP in any way. In fact it is the Focus heads in each clause that interact with the wh-XP, not the wh-
expletive. The role of the expletive is solely to satisfy the EPP – it has no other purpose. This approach permits an arbitrarily long series of Focus heads to value one another via static Agree over a distance. In this view, there need be no direct link between the expletives and the full wh-XP. The wh-expletive does not possess interpretable features, so will ultimately be meaningless, and only the features of the full wh-XP will be relevant in the interpretation of the question.

The analysis of long-distance wh-expletive dependencies presented in (49) captures an important intuition about the construction in (46). There is a sense in which both wh-movement and wh-expletive constructions are alternative strategies for forming a long-distance wh-dependency. In this approach to wh-expletive constructions, it is the features of the wh-XP itself that cause features on the successive Focus heads to be valued. In (54), it is the features of the wh-XP that value the intermediate Focus head, and those features which in turn value the features of the matrix Focus head. Some information about the wh-XP is affecting the series of heads, passed up from one clause to the next. In this way, this account shares with previous direct dependency approaches the notion that wh-movement and wh-expletive constructions are two different methods of creating the same long-distance wh-dependency. Here, it is the features of the full wh-
XP that ultimately cause the features of the matrix Focus head to be valued, whether it moves there itself, or whether a wh-expletive fills the position so that static Agree can occur.

In the diagram in (49), the intermediate Focus head, like the matrix Focus head, has a [Q] feature. This causes the wh-expletive in its specifier to have all its uninterpretable features valued, and thus be frozen in place. We can now note that this has an additional consequence, of valuing the uninterpretable [Q] feature on the wh-XP in the specifier of the lowest Focus head. In effect, this makes the lower two clauses of the structure in (49) analogous to any two-clause wh-expletive construction. The analysis in (49) ensures not only that the wh-expletive is frozen in place in the specifier of the intermediate Focus head, but also that the wh-XP in the lowest clause is frozen in the lowest Focus specifier.

A central element in these proposals (evident in (49)) is the availability of three different flavors of Focus heads – each with a slightly different set of interpretable and uninterpretable features. A legitimate concern arises at this point: what if it is not these exact combinations of features that appear on these heads in the numeration and in this just this order? For instance, what if an intermediate Focus head in a three clause wh-
expletive construction was not of the type containing a [Q-\*u]? (Of course, the presence of a [Q-\*i] at the top of an interrogative clause is going to be mandated by the selectional requirements of the governing predicate). One way of answering this question is to work through this and other scenarios for both wh-movement and wh-expletive strategies (as is done in the Appendix). However the larger answer to this family of questions is that derivations and numerations with flaws such as these fail to converge. Some uninterpretable feature in each case will remain unvalued and will result in a crash. The system of features proposed here is such that heads which must trigger a certain semantic interpretation (for matrix questions, the matrix Focus head) possess certain interpretable features. Uninterpretable features on those heads serve to enact movement of and
agreement with various goals. Certain sets of features appearing on heads in a certain order limit the patterns that can appear. Other patterns will result in non-convergent derivations. As opposed to a long list of maxims, principles, and conditions, in this framework the properties of the grammar are expressed via features and the systematic operations that result in their valuation. Though we will not explore this issue here, it should be noted that it is part of an important set of broader questions about the way in which the Minimalist Program accounts for ungrammaticality.

Through (47)-(49), the feature-based approach to wh-expletive constructions in 3.1 has been extended to account for such constructions in sentences of three clauses (in fact to sentences of arbitrarily many clauses). Essential to this account are two operations that can function alone or in concert. The first is interclausal wh-movement, in which a wh-XP moves from one clause to the next through a series of Focus heads. These Focus heads cannot value the uninterpretable feature on the wh-XP, so the wh-XP must continue until reaching the matrix clause. The second operation is wh-expletive clause internal movement, in which the Focus head has the capacity to deactivate the wh-expletive by valuing its single uninterpretable feature. The wh-expletive only values the EPP on this type of Focus head, and then remains fixed in its specifier. The Focus head then acts as a probe and values its uninterpretable features via static Agree within its domain. An example like (44), with long wh-movement, makes use only of the first operation described here. (45) and (to a lesser extent) (46), make use of both of these operations in combination. Given the different flavors of functional heads that can appear, and the different types of wh-elements in languages like Kashmiri (meaningless wh-expletives and meaningful wh-XPs), it is predictable that there will be several ways to form a matrix question in a three-clause sentence.

At this point, however, an unresolved question arises concerning (43b). An alternative derivation of (43b) is conceivable in which the EPP of the intermediate clause is satisfied. If the wh-expletive that appears in the matrix clause originated in the intermediate clause, then we would need to find an alternative explanation for the ungrammaticality of (43b). Such a derivation would be one in which the wh-expletive in the intermediate clause raised into the specifier of the intermediate Focus head, then raised further into the specifier of the matrix Focus head. In this case the EPP would be satisfied in both positions, and (43b) should not be ungrammatical.

This would be analogous to the behavior of DP-expletives. Consider the English DP-expletive there in (50).

(50) There seems to be a problem.

The standard account of (50) is that there originates in specifier of the TP [to be a problem], and then raises into the specifier of the higher TP. However, there are several reasons to believe that wh-expletives, unlike DP-expletives, cannot move from one clause to another. I will address these reasons below, and will ultimately conclude that the ungrammaticality of the (b) sentences can be explained as a failure to satisfy the intermediate EPP.

Part of the evidence for rejecting wh-expletive movement comes from Hungarian. Recall above that the explanation for the so-called crosslinguistic anti-locality effect of wh-expletives was that wh-expletives originate in a case position inside their clause. Therefore sentences in which the wh-expletive shares a clause with the full wh-XP will be correctly predicted to be impossible. In Hungarian, the base-generated position of the
wh-expletive is quite clear, since it bears a morphological indication of the case it is assigned.

Consider the three-clause question in (51). The verb in the intermediate clause, szamitasz, assigns allative case to the wh-expletive in its clause, resulting in the form mire. The matrix verb hitt assigns accusative case to its wh-expletive, resulting in the form mit.

(51) Mit hitt Janos, hogy mire szamitasz, hogy mit fognak expl-acc thought-indef Janos that expl-al count-2sg that what will mondani a gyerekek?
say-inf the kids-nom
‘What did John think that you expect that the kids will say?’

Adding complexity to this question, Horvath (2000) and Simpson (2000) report that sentences of the type in (41b-43b), in which the intermediate clause lacks a wh-expletive, are possible in Hungarian, as well as in some varieties of German and possibly dialects of Kashmiri (these varieties will be discussed in detail below). If these sentences were formed via movement of the intermediate wh-expletive into the highest clause, we would expect that the sole wh-expletive in the sentence would be the allative form mire. This prediction is not borne out.

(52) Mit/ *mire hitt Janos, hogy szamitasz, hogy mit fognak expl-acc/expl-al thought-indef Janos that count-2sg that what will mondani a gyerekek?
say-inf the kids-nom
‘What did John think that you expect that the kids will say?’ (Simpson, 2000)

Instead, it is the accusative form of the expletive mit that is grammatical, as is apparent in (52). If the expletive that ultimately appears only in the matrix clause originated in the intermediate clause, it would first have had to receive allative case from szamitasz, then accusative case from hitt. It seems clear that this wh-expletive was base-generated in a case position in the matrix clause. Simpson takes this to indicate that wh-expletives cannot move from one clause to another.

We can also find support for this position in a variety of Kashmiri (let us call it Kashmiri B) which permits sentences like (43b). Let us compare the sentence with a wh-expletive in each clause, with the sentence that lacks a wh-expletive in the intermediate clause (repeated here as (54), and marked grammatical).

(53) Raman k'a von ki tse k'a: chu-y ba:sa:n ki mohn-as kem' dits kita:b?
Ram expl said that you expl aux think that Mohan who gave book
‘Who did Ram say you think Mohan gave the book to?’

(54) Raman k'a von ki tse chu-y ba:sa:n ki mohn-as kem' dits kita:b?
Ram expl said that you aux think that Mohan who gave book
‘Who did Ram say you think Mohan gave the book to?’ [Kashmiri B]

In all dialects of Kashmiri, the pronoun preceding the wh-expletive in (53), tse ‘you’, is interpreted as a topic. Any argument to the left of a wh-phrase in a Kashmiri clause is a topic and would not, for instance, be able to host the focus-marker –ti (Bhatt 1999). In the sentence in (54), on the other hand, tse is interpreted as focused material. It can grammatically host the focus-marker, and cannot be interpreted as a topic. This distinction would be unexpected if the wh-expletive in the matrix clause in (54) had originated in the intermediate clause and then raised. If this were the derivation of (54),
the wh-expletive would have occupied the specifier of FocusP, and would not permit any other focused elements to appear (as in (53)) (Bhatt 1999). Tse would have to be located in the specifier of the Topic phrase. Movement of the wh-expletive to the matrix clause should not change the informational role of tse. For this reason (54) serves as further evidence that wh-expletives do not move out of the clause in which they originated.

Under the feature-based analysis presented for wh-expletives in two-clause questions, it is expected that wh-expletives cannot move out of their clause. This is because the wh-expletive has a single uninterpretable [Q] feature. The feature is valued when the wh-expletive moves into the specifier of the Focus head in the clause in which it originates because in intermediate clauses in which expletives are generated there is an uninterpretable [Q] feature on the Focus head. Since the intermediate Focus head in these constructions values all uninterpretable features on the wh-expletive, then the immobility of wh-expletives is accounted for. The wh-expletive becomes inactive and is ‘frozen’ in place, unable to participate in any further interactions with higher Probes. In this way, the system of features developed above to account for wh-expletive constructions predicts that wh-expletives cannot move from clause to clause.

Although this question is by no means resolved, I will for now conclude that wh-expletives may not undergo further raising after they raise to the specifier of a [Q]-bearing head and are thereby rendered inactive. Given this, we can assume that in the ungrammatical (b) sentences in (41-43) the intermediate wh-expletive is simply missing, and that each will fail due to the unsatisfied EPP in the first embedded clause.

As is mentioned above, in Hungarian and some varieties of German and Kashmiri, structures like the (b) sentences above are grammatical. In these sentences there is apparently no expletive in the intermediate position. Simpson attributes this pattern to phonological deletion of the intermediate expletive, and not expletive movement. However, (54) suggests that this explanation is not plausible. There is only one position for a focused element in the Kashmiri clause (the specifier of FocusP), and in the intermediate clause in (54) the pronoun tse ‘you’ is occupying this position. This means that it is impossible for there to be another element, for instance a wh-expletive, in this position at all, regardless of whether or not it is pronounced. Although this question is not yet resolved, importantly the core pattern, in which the wh-expletive obligatorily appears in all intermediate positions in a multiclausal matrix question, does follow from the account presented here.

Throughout this discussion, we have built an account of A-bar movement that is guided by the same general principles which underlie A-movement. The question then becomes why expletive movement is possible in the A-system, but not in the A-bar system. Consider once again (50), repeated here as (55).

(55) There seems to be a problem.

What is different about the DP-expletive there that permits it to move, while wh-expletives may not? My tentative answer to this question here is: nothing. In fact, the DP-expletive and the wh-expletive are roughly equivalent in terms of feature content, each possessing only uninterpretable features. The difference lies instead in the types of heads which exist in the A and A-bar systems. In the A-system, the non-finite T head is often referred to as ‘defective’. It has no ability to assign case to a DP or even to fully Agree with its phi-features. In the A-bar system, there is no analogous ‘defective’ head. Although there are different types of Focus heads, all of them have uninterpretable [wh]
features which are valued by some [wh] feature in their domain. So under this account there is no A-bar equivalent of the ‘defective’ T head. We can simultaneously make an empirical observation that there is also no visible equivalent of non-finiteness in the A-bar system – that is, there is no morphological realization of ‘defectiveness’ like the English word to. For this reason I will assume here that the fact that wh-expletives cannot move from one clause to another does not represent a major split between the A and A-bar systems, nor does it represent a strong distinction between the two types of expletives. It is also relevant to note here that some researchers have concluded that A-expletives also do not undergo movement (Bošković 2002), and that the reason for believing in A-expletive raising may only be as strong as believing that the raising T head bears the EPP. Although more research is certainly needed on this point, I will maintain that this supposed distinction does not represent a major difference between A and A-bar expletives themselves.

5. Conclusion

Current theoretical frameworks provide us with a new way to approach wh-movement and wh-expletive constructions. The account presented here claims that A-bar movement, like A-movement, is driven by a system of interpretable and uninterpretable features. This permits a new view of wh-expletive constructions in languages like Kashmiri: wh-expletives serve to satisfy needs of certain heads in the A-bar system, allowing those heads to interact at some distance with contentful wh-material.

While this account covers significant empirical ground, it makes no use of devices particular to the construction under analysis here. Instead the mechanisms proposed apply to all of A-bar movement, and in fact reveal the symmetry of design between the A and A-bar systems.

Appendix:

From the diagrams in (47)-(49) we see that there are three possible feature bundles that can appear on a Focus head in a three-clause matrix question. The presence of the feature bundle that contains [Q-i] is determined by the selecting predicate (or in matrix position). However, other predicates (such as the equivalents of think or say) could in principle select a Focus head with either of the two remaining bundles. These two bundles differ in that one contains [Q-u] and one does not. The following schematics depict the three Focus heads in a three-clause matrix wh-question in which the full wh-XP originates in the lowest clause. They illustrate that if the incorrect feature bundle is chosen on one of these two lower heads the derivation will nearly always fail to converge.

The two patterns already established above in (47)-(49) are shown in in (i)-(ii)

(i) Focus1 Focus2 Focus3
   wh-u wh-u wh-u
   Q-i EPP EPP
   EPP

(see (47)-(48))

11 Clearly this list of features is not exhaustive; only the relevant features are displayed for the sake of illustration.
The feature bundles on the Focus heads in (i) permit full wh-movement to the specifier of Focus1, or partial wh-movement to the specifier of Focus2 with a wh-expletive in the specifier of Focus1, but do not permit partial wh-movement only to the specifier of Focus3, because the [Q] feature on the full wh-XP could not be valued (there is no other [Q] feature on an accessible Probe). The features in (ii) permit only partial wh-movement, to either the specifier of Focus2 or Focus3, with wh-expletives in the specifiers of higher Focus heads.

The patterns in (iii) and (iv) are not discussed in 4.2. In (iii) the Focus3 head possesses Q-u instead of the Focus2 head.

This combination of heads will not permit any derivation to converge. The wh-XP will be frozen in the specifier of Focus3 because all of its features will have been valued. However, a wh-expletive (having only the [Q-u] feature) that originates in the clause beneath the Focus2 head (with no [Q] feature) will not be attracted by that head because they have no matching features. As predicted, no derivation will converge given this selection. It is also possible that both the Focus2 and Focus3 heads could have a [Q-u] feature, as in (iv).

In this case, we would predict again that no derivation would converge. The wh-XP originating in the lowest clause will be frozen in the specifier of Focus3 because all of its features will have been valued. So wh-movement to either the specifier of Focus1 or Focus2 will not be possible. However, the construction with a wh-expletive in the specifier of Focus1 and Focus2 is possible, as no features will remain unvalued. This is the only unexpected converging derivation.

It is worth considering whether this system of heads would permit constructions in which there are only wh-expletives in every clause (no full wh-XPs). This would not be possible because the [wh-u] feature on Focus3 head in (i)-(ii) would not be valued, since the expletive has no [wh] feature. This derivation would fail to converge. So too would a derivation in which full wh-phrases instead of wh-expletives occupied the specifiers of Focus1, Focus2, and Focus3, though the intended interpretation was the same as a canonical wh-expletive construction. Assuming the heads were either like those in (i) or (ii) the [Q-u] on the wh-XP in the specifier of Focus3 would not be valued, because either the Focus2 head will not have its own [Q] feature (as in (i)), or the Focus2 Probe will be inactive before probing the wh-XP in the specifier of Focus3, because it will have been valued through interaction with the wh-XP in its own clause. In either case, this type of derivation also will fail to converge. The important thing to conclude from the exercise in
this appendix is that in this view the feature bundles that appear on the relevant heads permit all and only the family of grammatical constructions, while making no use of stipulations or devices particular to the construction under analysis here.

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