

Wacky, weird, or widespread? Wh-questions without wh-words

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1 Introduction¹

→ In every natural language, it is possible to ask questions. Questions are distinguished from declarative sentences by one or more of the following characteristics:

- presence of a wh-word (wh-questions) or question particle (yes/no-questions);
- change in word order;
- question intonation.

→ In the following, I will focus on wh-questions. Consider the Spanish sentence pair in (1). In the object wh-question in (1b), the wh-word *que* occupies a position different from the object *un libro* in (1a) and the sentence is accompanied by question intonation.

- (1) a. Mi hermano compró **un libro** [Spanish]
 my brother bought a book
 ‘My brother bought a book.’
 b. **Que_i** compró mi hermano *t_i*
 what bought my brother
 ‘What did my brother buy?’

→ The above characteristics also characterize wh-questions in sign languages (SLs). In the SL of the Netherlands (NGT) object wh-question in (2b), the wh-word does not occupy its base position (2a) and the sentence is marked by non-manual question intonation.

- (2) a. YESTERDAY POSS₁ BROTHER **BOOK** BUY [NGT]
 ‘Yesterday my brother bought a book’
 b. wh
 YESTERDAY POSS₁ BROTHER *t_i* BUY **WHAT_i**
 ‘What did my brother buy yesterday?’

→ According to Cheng’s (1991) Clausal Typing Hypothesis (CTH, (3)), every clause needs to be typed. Displacement of the wh-word – be it to clause-initial (1b) or clause-final (2b) position – is one way to clause-type the sentence as a wh-question.

→ Moreover, it has been proposed that in addition to clause-typing, wh-phrases embed a focus feature, i.e. the questioned element is always in focus (Hovarth 1986; Kiss 1998).

→ Alternatively, in languages without wh-movement (wh-in-situ languages), a question particle types the clause as a wh-question, while the wh-phrase remains in its base position (see section 2). Both options are captured by the CTH in (3):

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(3) Clausal Typing Hypothesis (Cheng 1991: 30):

Every clause needs to be typed. In the case of typing a wh-question, either a wh-particle in C° is used or else fronting of a wh-word to the Spec of C° is used [...].

- The previous statements lead to the conclusion that a wh-phrase is always needed in content questions whether or not associated with a wh-question particle.
- In the following, I argue that this might be a wrong characterization. I present data from signed and spoken languages that indicate that wh-phrases are neutral to question formation.
- Outline: wh-movement vs. wh-in-situ languages (section 2); wh-phrases are not necessarily focused (section 3); wh-phrases do not necessarily clause-type (section 4); wh-phrases are not necessary in wh-questions (section 5); sketch of analysis (section 6).

2 Wh-movement languages vs. wh-in-situ languages

2.1 Spoken languages

- In (1), we have already seen a Spanish example in which the wh-element moves. In (4), I give an additional English example; (4c) illustrates that the wh-phrase may not remain in its base position (except in echo questions).

- (4) a. She met **her friends** at the concert [English]
 b. **Who_i** did she meet t_i at the concert?
 c. * She met **who** at the concert?

- Wh-movement languages may differ with respect to whether they allow multiple wh-fronting or not. In English, only one wh-phrase may front (5ab), while in Bulgarian, two (or more) wh-phrases may appear sentence-initially (5c) (Rudin 1988: 449).

- (5) a. **Who** bought **what** at the market? [English]
 b. * **Who what** bought at the market?
 c. **Koj kogo** vižda [Bulgarian]
 who whom sees
 ‘Who sees whom?’

- According to Cheng (1991), wh-in-situ languages have particles to clause-type the wh-question, as is illustrated by the Japanese (6a) (Lasnik & Saito 1992: 1), Chinese (6b) (Cheng 1991: 30), and Nweh (6c) (Bantu, Cameroon; Nkemnji 1995: 168) examples.

- (6) a. John-wa nani-o kaimasita **ka** [Japanese]
 John-TOP what-ACC bought Q
 ‘What did John buy?’
 b. Qiaofong mai-le sheme **ne** [Chinese]
 Qiaofong buy-ASP what Q
 ‘What did Qiaofong buy?’
 c. Njikèm à kè? npfét akō ɔ [Nweh]
 Njikem AGR TNS eat what Q
 ‘What did Njikem eat?’

- (9) a. Ménù wè Sésínú dà [Gungbe]
 who FOC Sessinou marry
 ‘Who did Sessinou marry?’
 b. Àsíábá wè Sésínú dà
 Asiaba FOC Sessinou marry
 ‘Sessinou married ASIABA’

→ Moreover, the ungrammatical examples in (10) indicate that wh-phrases and focused constituents cannot co-occur, irrespective of order, and further support the view that wh-phrases are inherently focused.

- (10) a. * Àsíábá wè ménù wè dà [Gungbe]
 Asiaba FOC who FOC marry
 b. * Ménù wè Àsíábá wè dà
 who FOC Asiaba FOC marry

→ These data support an analysis in which the focus- and wh-expressions compete for the same position within the phrase structure, i.e. the specifier of a focus phrase whose head is realized by the focus marker *wè* (Aboh 2004).

→ There are, however, languages where things are not so simple, i.e. languages, in which focus and wh take different routes (also cf. Bošković 2002 for Slavic languages).

→ For instance, Rizzi (2001) shows that sometimes focused constituents and wh-phrases may co-occur in Italian subordinate clauses.

→ Moreover, some languages do distinguish between focused and non-focused wh-questions. Consider, for instance, the Oromo (Cushitic, Ethiopia) examples in (11) (Yiman 1988).

- (11) a. Eeñnu duf-e [Oromo]
 who come-3.SG.PERF
 ‘Who came?’
 b. Eeñnu-tu duf-e
 who-FOC come-3.SG.PERF
 ‘Who is it that came?’

→ Examples like (11) falsify the assumption that wh-elements are inherently focused and point to the fact that wh-phrases do not always move to the focus position (see Schwarz (in press) for in-situ vs. focused wh-questions in Kikuyu (Bantu, Kenya)).

3.2 Signed languages

→ Little is known about the realization of focus in SLs (see Petronio (1991) for ASL) and even less about possible co-occurrences of wh-phrases with focused constituents.

→ Similar to the Oromo example in (11), however, it has been claimed that some SLs distinguish between focused and non-focused wh-questions.

→ For ASL, two different distinctions have been suggested. Neidle (2002) claims that ASL in-situ wh-questions (8b) are neutral while wh-questions with final wh-element (8c) receive a focus interpretation.

→ In contrast, Petronio & Lillo-Martin (1997: 30f) claim that wh-doubling constructions (12a) receive a focus interpretation, in contrast to clauses with only one wh-element but similar to other constructions with doubled elements (12b).

- (12) a. $\overline{\text{WHAT JOHN BUY YESTERDAY WHAT}}^{\text{wh}}$ [ASL]
 ‘What did John buy yesterday?’
 b. $\overline{\text{NANCY HATE ICE-CREAM HATE}}^{\text{hn}}$
 ‘Nancy *hates* ice-cream.’

→ A similar though theoretically different proposal has been brought forward for wh-doubling constructions in Brazilian SL (LSB) by Nunes & de Quadros (2004): both examples in (13) are claimed to receive focus interpretation.

- (13) a. JOHN BUY WHAT YESTERDAY WHAT [LSB]
 ‘What did John buy yesterday?’
 b. WHAT JOHN BUY YESTERDAY WHAT
 ‘What did John buy yesterday?’

→ Indopakistani SL (IPSL) does not allow for wh-doubling. Still, a distinction is made between focused and non-focused wh-questions (Aboh, Pfau & Zeshan 2005; Aboh & Pfau, in press); see section 5.2 for discussion.

4 Co-occurrence of wh-movement and question particle

→ Remember that not all languages involve wh-movement. In many wh-in-situ languages, wh-questions are typed by a q-particle. In other words, there are two types of clause-typing: through wh-movement or by means of a q-particle.

→ Cheng (1991: 37) predicts that no language has wh-particles and also syntactic wh-movement. In this section, I show that this prediction, too, is not borne out.

4.1 Spoken languages

→ Wh-questions in Lele (Chadic) involve a wh-phrase combined with the sentence-final question particle *gà* (the same particle is found in yes/no-questions).

→ In Lele, object wh-questions exhibit in-situ and ex-situ strategies. In (14a), the wh-phrase remains in situ and precedes the clause-final particle *gà* while in (14b), the wh-phrase moves to clause-initial position where it precedes the focus marker *ba* (Frajzyngier 2001: 284f).

- (14) a. Mè ày wéy gà [Lele]
 2.SG.F marry who Q
 ‘Who did you marry?’
 b. Me ba gol dí gà?
 what FOC see 3.SG.M Q
 ‘What did he see?’

→ In contrast, in subject questions, the wh-phrase must front to the left of the focus marker *ba* as in (15a). The wh-phrase cannot remain in situ, hence the ungrammaticality of (15b) (Frajzyngier 2001: 282).

- (15) a. **Wéy** ba é gà [Lele]
 who FOC go Q
 ‘Who went away?’
 b. * **Wéy** é gà
 who go Q

→ Since, the work of clause-typing in Lele is done by the question particle, it cannot be assumed that wh-movement serves the purpose of clause-typing (see Bruening (2004) for a list of other spoken languages with wh-movement and question particle).

4.2 Signed languages

- Similar to what we observe in Lele, the co-occurrence of a moved wh-element with a sentence-final question particle is observed in some SLs.
 → In the NGT examples in (16), a question particle glossed as PU (palms up) follows the wh-signs, both of which are moved – assuming that NGT is underlyingly SOV (as in Lele, PU may also appear in yes/no-questions).

- (16) a. $\frac{\text{wh}}{\text{INDEX}_3 t_i \text{ SAY WHAT}_i \text{ PU}}$ [NGT]
 ‘What did s/he say?’
 b. $\frac{\text{top}}{\text{BOOK}, t_i \text{ STEAL WHO}_i \text{ PU}} \frac{\text{wh}}{\text{PU}}$
 ‘Who stole the book?’

- Consequently, two traditional assumptions are not corroborated by cross-linguistic data: (i) wh-elements are not generally inherently focused; and (ii) wh-elements do not generally move for clause-typing purposes.
 → We may therefore ask: What’s a wh-word got to do with a wh-question? In the following section, I claim: Nothing!

5 Wh-questions without wh-words

→ In order to support the above claim, in this section, I present data that show that some languages can do without wh-elements in wh-questions. The data come from Wari¹, Indopakistani SL, NGT, and other SLs.

5.1 Wari' (Oro Nao dialect)

→ Wari' (Chapakuran, Brazil) displays word order variations that are mainly determined by pragmatic considerations. Two configurations are of interest here: neutral sentences and wh-questions.

→ In neutral sentences, such as (17), word order is VOS, the verb being followed by a verbal inflectional clitic (VIC) which expresses person, number, and gender of subject and object as well as tense (Everett & Kern 1997: 131).²

- (17) Mi' na-m con hwam Orowao [Wari']
 give 3SG.RP/P-3SG.F PREP.3SG.M fish Orowao (male name)
 'Orowao gave her a fish.'

→ In contrast, in subject (18a) and object (18b) wh-questions, the argument that is being questioned is missing from its normal position and the sentence is introduced by the general question particle *ma* (derived from a demonstrative) followed by an inflectional element that signals gender and tense (Everett & Kern 1997: 19f).

- (18) a. Ma' co pa' nana hwam pain xec ca' ne
 that.PROX.H M/F.RP/P kill 3PL.RP/P fish PREP.N day this.N REC.P
 'Who killed fish this morning?'
 b. Ma' carawa ca pa' caca mon tarama'
 that.PROX.H animal N.RP/P kill 3PL.M COLL man
 'What thing/animal did the men kill?'
 c. Ma' xec ca pa' caca hwam mon tarama'
 that.PROX.H day N.RP/P kill 3PL.M fish COLL man
 'When did the men kill fish?'

→ Note that when questioning the object (18b) or a temporal phrase (18c), the question marker *ma* may combine with an associate phrase: *carawa* ('animal') in (18b), *xec* ('day') in (18c).

→ It therefore appears that Wari' lacks proper wh-phrases of the type found in the spoken and signed languages discussed above. It is the combination of the question particle and the inflectional element that determines the target of the question.

→ Note that in contrast to the examples in (6) and (14), the question particle appears sentence-initially in Wari'.

5.2 Indopakistani Sign Language (IPSL)

→ IPSL is a verb-final language (19). The order of arguments, however, is fairly free and is based on pragmatic factors; topicalization of constituents is a common strategy (19b) (Zeshan 2003; Aboh, Pfau & Zeshan 2005).

- (19) a. MAN INDEF WALK b. APPLE CHILD EAT [IPSL]
 'Someone is walking.' 'A child eats an apple.'
 c. TOMORROW INDEX₁ DELHI INDEX₃ GO
 'I am going to Delhi tomorrow.'

→ In contrast to other SLs, IPSL has a minimal wh-sign paradigm. In fact, there is only one non-compositional wh-sign, namely the general wh-sign G-WH.

² RP/P = realis past / present, REC.P = recent past, PL = plural; SG = singular; COLL = collective; M = masculine; F = feminine; N = neutral; PROX = proximal; H = hearer; SFP = sentence-final (tense) particle.

→ G-WH covers the whole range of question words in other languages (20); its interpretation has to be inferred from the context. To express more specific meanings, G-WH may combine with other non-interrogative signs (see (21) below).

- (20) a. () wh
CHILD ANGRY **G-WH**
'Why is the child angry?'
- b. () wh
INDEX₂ AGE **G-WH** [IPSL]
'What's your age?'
- c. () wh
INDEX₃ COME **G-WH**
'Who is coming?'
- d. () wh
INDEX₂ FRIEND SLEEP **G-WH**
'Where does your friend sleep?'

→ Crucially, the placement of G-WH is much more constrained than what has been reported for other SLs: G-WH can only appear in sentence-final position and it cannot be doubled.

→ Interestingly, IPSL manifests other clause-typing morphemes together with which G-WH forms a paradigm. All of these "functional particles" assign a clause to a particular clause type (e.g. negative, imperative) and have scope over the whole clause. This empirical fact provides the ground for the analysis of G-WH in terms of clause-typing.

→ According to Zeshan (2000: 97), these signs "have a relatively simple structure as compared to other signs", and form a closed class, two typical properties of functional items (see Zeshan (2000: 95f) for examples).

→ Building on these observations, we propose that G-WH is a question particle. That is, IPSL has a sentence-final particle G-WH (similar to Lele *gá*) which clause-types the sentence and which is associated with a null wh-element to form the wh-question.

→ In case the context does not allow for an unambiguous interpretation of G-WH, IPSL signers may use composite expressions, combinations of G-WH with an associate phrase. Attested combinations are FACE G-WH ('who'), PLACE G-WH ('where'; cf. figure 1), TIME G-WH ('when'; cf. figure 2), and NUMBER G-WH ('how many').

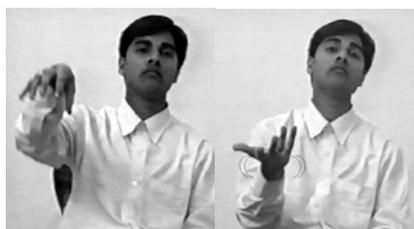


Figure 1. PLACE G-WH ('where')

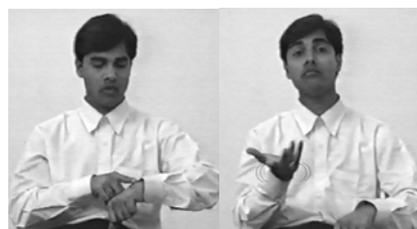


Figure 2. TIME G-WH ('when')

→ However, this option is not available for 'What', 'Why', and 'How'; these meanings can only be expressed by the general wh-sign G-WH alone.

→ Crucially, according to our informant, constructions with an associate phrase receive a focus reading. Interestingly, while G-WH always appears sentence-finally, the associate phrase of the complex wh-expressions may remain in situ, as illustrated in (21).

- (21) a. INDEX₂ FRIEND **PLACE** SLEEP **G-WH** [IPSL]
'Where does your friend sleep?'
- b. INDEX₂ [BOOK NUMBER] TAKE **G-WH**
'How many books will you take?'

→ Note that the associate phrase may also appear left-adjacent to G-WH; for discussion of these cases, see Aboh, Pfau & Zeshan (2005).

→ In sum, IPSL, just like Wari', lacks proper wh-phrases. Instead, IPSL makes use of a sentence-final wh-particle that may combine with a non-interrogative associate phrase, similar to what has been shown in the Wari' examples (18bc).

5.3 SL of the Netherlands (NGT) and other SLs

→ In contrast to IPSL, SL of the Netherlands (NGT), an SOV language, has a full paradigm of wh-signs. The most common position for wh-signs is the sentence-final position (22), which – for subjects and objects – is not the in situ position.

- (22) a. $\frac{\text{wh}}{\text{YESTERDAY INDEX}_2 t_1 \text{ BUY WHAT}_i}$ [NGT]
 'What did you buy yesterday?'
 b. $\frac{\text{wh}}{t_1 \text{ INDEX}_2 \text{ BIKE STEAL WHO}_i}$
 'Who stole your bike?'

→ Above, we have already seen that the moved wh-phrase may combine with a question particle (16). Interestingly, in appropriate contexts, the wh-sign may be dropped (23), and the wh-question is only marked by a particle (and non-manual marking, of course), similar to the Wari' and IPSL examples discussed above.

- (23) a. $\frac{\text{wh}}{\text{YESTERDAY INDEX}_2 \text{ BUY PU}}$ [NGT]
 'What did you buy yesterday?'
 b. $\frac{\text{wh}}{\text{TRAIN FRANKFURT LEAVE PU}}$
 'When does the train to Frankfurt leave?'

→ Occasionally, the sentence-final particle is dropped, too, and we are left with a wh-question which is only marked by intonation, as illustrated in the examples in (24) ((24b) from Coerts (1992: 204)).

- (24) a. $\frac{\text{top}}{\text{SHOP INDEX}_3 \text{ INDEX}_2 \text{ BUY}} \frac{\text{wh}}{\text{BUY}}$ [NGT]
 'What did you buy in this shop?'
 b. $\frac{\text{wh}}{\text{INDEX}_1 \text{ SUITCASE}}$
 'Where is my suitcase?'

→ Wh-questions without wh-elements have also been described for other SLs. The examples in (25) are from ASL; (25a) from Petronio & Lillo-Martin (1997: 36), (25b) from Aarons (1994: 111), (25c) from Lillo-Martin & Fischer (1992).

- (25) a. $\frac{\text{wh}}{\text{FATHER LEAVE } \langle e \rangle}$ [ASL]
 'Why/how/when did father leave?'
 b. $\frac{\text{wh}}{\text{JOHN BUY YESTERDAY}}$
 'What did John buy yesterday?'

- c. $\overline{\text{wh}}$
 COLOR INDEX₂ PREFER
 ‘What color is your favorite?’

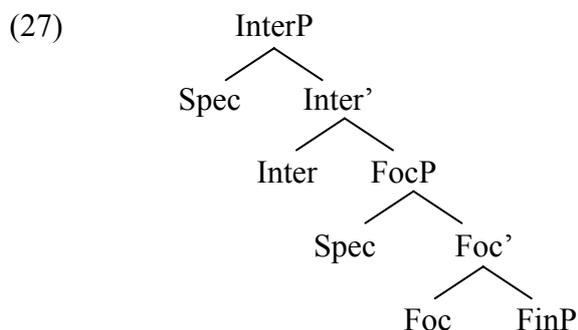
→ In (26), additional examples from Japanese SL ((26ab), Fischer 2005)) and Russian SL ((26c), Zeshan 2004: 30) are given.

- (26) a. $\overline{\text{wh}}$ COLOR LIKE or COLOR LIKE $\overline{\text{wh}}$ [Japanese SL]
 ‘What color do you like?’
- b. $\overline{\text{wh}}$
 GO PURPOSE GO
 ‘For what purpose are you going?’
- c. $\overline{\text{wh}}$
 INDEX₂ NAME INDEX₂ [Russian SL]
 ‘What’s your name?’

- The above examples indicate that even in SLs that do have a paradigm of proper wh-signs, wh-questions can sometimes be realized by a particle or by non-manual intonation only. In all cases, the target of the question has to be supplied by the context.
- To sum up: wh-elements are not necessarily focused, they do not necessarily clause-type the sentence, and they are not even necessary in wh-questions – although the latter phenomenon seems to be more common in SLs than in spoken languages.

6 Sketch of analysis

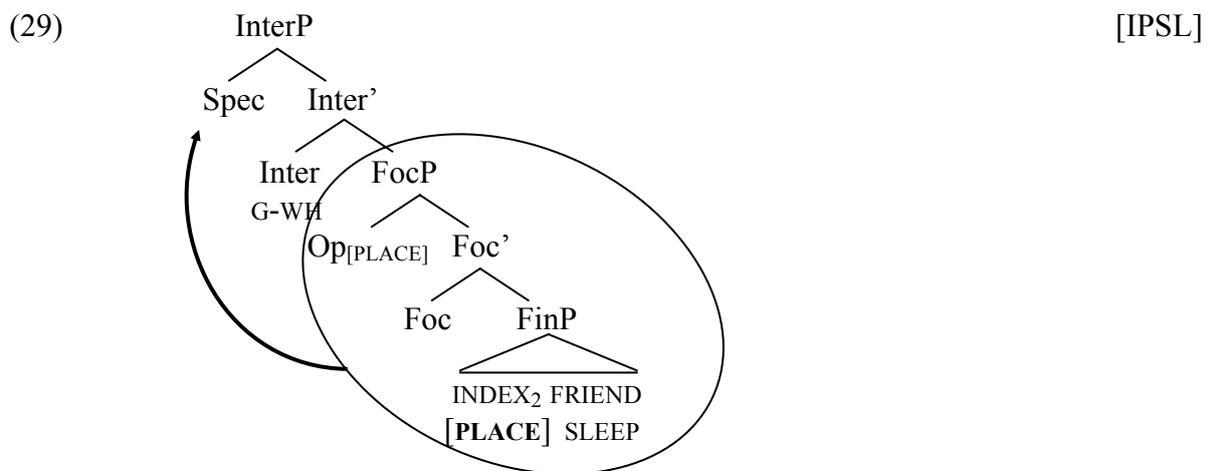
- For detailed analyses of the above spoken language and SL examples see Aboh (2004, in press), Aboh & Pfau (in press), and Aboh, Pfau & Zeshan (2005).
- Traditionally, it has been assumed that the landing site of wh-movement is SpecCP (Chomsky 1977; Lasnik & Saito 1992). Under the Split-C-Hypothesis (Rizzi 1997), the specifier of a focus phrase is taken to be the landing site of wh-movement.
- In contrast, the relevant projection in yes/no-questions is an interrogative phrase (Rizzi 2001), which dominates FocP; see the partial phrase structure in (27).



- The head of InterP may host a question particle, as e.g. in Lele ((28a), Frajzyngier (2001: 217)) and Nweh ((28b), Nkemnji (1995: 154)). For these cases, we assume that the whole proposition is attracted into SpecInterP thereby preceding the sentence-final particle.

- (28) a. Dì dí kàre gǎ [Lele]
 eat 3.SG sauce Q
 ‘Did he eat the sauce?’
 b. Njikèm à kè? npfét akèndòn ñ̄ [Nweh]
 Njikem AGR TNS eat plantains Q
 ‘Did Njikem eat plantains?’

- In Aboh & Pfau (in press), we argue that InterP is active in all question types while FocP may be active in wh-questions in some languages.
 → For IPSL, e.g. we assume that G-WH occupies Inter°. In simple wh-questions (20), FinP raises to SpecInterP while in focused questions involving an associate phrase (21), FocP raises to SpecInterP (SpecFocP hosting an operator that binds the associate phrase).



- Note that in most of the above examples, the question particle appears sentence-finally. For all these cases, we assume movement of FinP/FocP to SpecInterP.
 → In the Lele example (14b) e.g., the wh-word *me* first moves to SpecFocP (foc-marker *ba* in Foc°) and subsequently, FocP moves to SpecInterP (q-marker *gǎ* in Inter°); see (30a).

- (30) a. [InterP [FocP Me [Foc° **ba** [FinP gol dí t_{me}]]] [Inter° **gǎ** t_{FocP}]] [Lele]
 b. [InterP **Ma'** (carawa) [Inter° **ca** [FinP [Fin° t_{ca} [VP pa' caca mon tarama']]]]] [Wari']

- In contrast, in Wari', the clause-typing morpheme *ma'* sits in SpecInterP. We propose that *ma'* is part of a DP (which may include the associate phrase) which sits in a Spec-head relationship with the Infl element attracted in Inter°; structure for (18b) in (30b).

7 Conclusion

- The examples given above indicate that wh-elements are neither inherently focused nor interrogative – in contrast to what has traditionally been assumed.
 → Although (i) most languages do indeed make use of wh-elements in wh-questions and (ii) wh-elements may commonly be in focus, both these characteristics are by no means a prerequisite for wh-question formation, as the above data show.
 → In other words: wh-questions without wh-words are certainly not widespread, they may therefore appear a bit wacky, but they are not weird; they are simply one option made available by UG in some languages.

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