Quexistentials:
words which can function as either interrogative or plain existential quantifiers without the addition of any auxiliary morphology.

Russian:
1. Kto prišel?
   QUEX came
   ‘Who came?’

2. Možet, kto prixodil.
   it.may.be.that QUEX came
   ‘It may be that someone came.’

Why not ‘indeterminate pronouns’ (Kuroda 1965)?
In Japanese, the indefinite use requires –ka locally and necessarily:

3. dare-ka
   someone

In the question use -ka is non-local and can appear only in the presence of the politeness marker_ALLOCATIVE agreement (Miyagawa 2017; p. 27):

4. Dare-ga ki-{mas}-u ka?
   who-NOM come-ALL-PRS KA
   ‘Who will come?’

For our purpose, that is too big a morpho-syntactic difference between the two uses.

Why not ‘wh-indefinites’?
Because this term refers only to the non-interrogative use of these items. The term ‘quexistentials’ refers to the lexical items that permit both the interrogative and non-interrogative uses.

Terminology:
‘Ex of Quex’ = the existential reading of the quexistential
‘Qu of Quex’ = the interrogative reading of the quexistential

Some broad-strokes cross-linguistic patterns
The sample of languages we studied, can be divided into 3 groups (though we will try to reduce it to two).

In the largest group, the ex of quex is possible in (roughly) negative polarity environments.

This group includes among other, Mandarin, Vietnamese, and Russian, the polarity language which we studied the most.

Russian
Ex of quex is not possible in affirmative episodic sentences:

5. Vasja s’jel čto.
   Vasja ate what
   /= ‘Vasja ate something’
   (possibly an echo question)

6. Kto prišel
   QUEX came
   /= ‘Someone came’
   (with the right intonation: ‘Who came?’)

But Ex of Quex is possible in a variety of environments that will remind you of NPI-hood.
Yes/No questions (but only as long as the quex is not fronted):

7. Prišel kto?
came QUEX
'Did somebody come?'
NOT: 'Who came?'

8. Kto prišel?
came QUEX
'Who came?'
NOT: 'Did somebody come?'

9. Vasja s'el čto?
Vasja ate QUEX
'Did Vasja eat something?'
NOT: 'What did V. eat?'

The ex of quex is also possible in the antecedent of a conditional:

10a. Esli (kto) pridet (kto), daj mne znat'.
if (QUEX) comes (QUEX), give me know
'If somebody comes, let me know'

b. Esli (kogo) uvidiš (kogo), daj mne znat'.
if (QUEX) see (QUEX), give me know
'If you see somebody, let me know'.

But not in the consequent (one would have to use a non-quex indefinite):

11. *Esli on ne pridet, ja ub'ju kogo.
if he NEG comes, I will.kill QUEX
Intended: 'If he does not come, I will kill somebody'

Certain epistemic predicates permit the ex of quex:

12. Možet, kto prixodil. (Yanovich 2005)
it.may.be.that QUEX came
'It may be that someone came.'

Wh-questions license NPIs:

13a. Who of you knows anything about Harari?

b. Who here has ever been to Timbuktu?

But not the ex of quex in Russian:

14. Kto čto s''el?
who what ate
'Who ate what?'
NOT: 'What did somebody eat?'
NOT: 'Who ate something?'

Moreover, the restrictor of a universal does not permit the ex of quex:

everybody who ate QUEX, remained satisfied
Intended: 'Everybody who ate something remained satisfied'

Finally, clausemate negation, a typical licensor of NPIs, does not permit the ex of quex in Russian:

16. *Ja ne videl kogo
I NEG saw QUEX
Intended: 'I did not see anybody.'

So what is going on? If ex of quex follows a polarity profile, why is it not possible in Wh-questions, restrictor of a universal and under clause-mate negation?

For the impossibility of ex of quex in Wh-questions and the restrictor of a universal, we could consider the proposal of Lin (1998) for Mandarin, in which the ex of quex is subject to these restrictions as well.

(adapted to our terminology)

17. Non-Entailment-of-Existence Condition on ex of quex:
The ex of quex is felicitous iff the sentence in which the quexistential appears does not entail existence of an entity satisfying the description of the quexistential.

(see also Dayal 1995 for a closely related proposal for any)
Our interpretation of Lin’s ‘description of the quexistential’: the intersection of (i) the quexistential’s domain of quantification (e.g., the set of people, things, times, or places) and (ii) the extension of the existential closure of the predicate that the quexistential combines with.

Eg:
17. Prišel kto?
came QUEX
‘Did somebody come?’

Here the “description” of the quexistential is the set of people who came. The polar question in (17) does not imply that this set is non-empty, so the ex of quex is permitted.

Lin’s generalization also predicts that the ex of quex is not possible in wh-questions if one assumes that wh-questions come with an existential presupposition:

19. Who ate the pizza with truffle mozzarella?
Presupposition: Somebody ate the pizza with truffle mozzarella

So with the condition of non-existence in mind, we don’t have to see the non-licensing of the ex of quex in the restrictor of a universal and Wh-questions, as an insurmountable obstacle to calling Russian quexistentials polarity items on the ex of quex, or Russian as a whole, a polarity language with respect to the ex of quex.

This leaves the obstacle of clause-mate negation, which does not license the ex of quex. The condition of non-existence does not provide any help here, as clausemate negation certainly is compliant with that condition. Moreover, in Mandarin, the ex of quex is possible with clause-mate negation.

However, an independent property of Russian is relevant here: Russian is a so-called “bagel-language”. In a bagel language, NPIs in general are not licensed by clausemate negation, even though this environment is clearly DE. There is a specialized paradigm of words that is used ONLY with clausemate negation.

Russian is a bagel language for all its NPIs, not just for the ex of quex. The libro-series NPIs are not permitted either with clausemate negation:

20. *On kogo-libo ne vstretil. (Pereltsvaig; example (11))
he whom-libo NEG met
Intended: “He didn’t meet anyone.”

The “description” of the quexistential: the set of things that were eaten by someone. But (18) presupposes, and therefore entails, that this set is non-empty, i.e., that there were things that were eaten by someone. Therefore, Lin’s generalization predicts that the quexistential is not licensed in this case, which indeed it isn’t.

(see Chierchia and Liao 2014 for a similar account)
21. Ja ne dumaju, čto Adam čital kakoj-ibo žurnal. (P's (10a))
I do not think that Adam read any journal.

Russian has a special NPI-series for clause-mate negation (and it cannot go in any other DE environment, including clause-external negation). This is the ni-series:

22. On ni-kogo ne vstretil.
he ni-whom NEG met
"He didn’t meet anyone."

23.*Ja ne dumaju, čto Adam čital ni-kakoj žurnal.
I NEG think that Adam read ni-which journal
Intended: “I don’t think that Adam read any journal.”

To our knowledge, the only work that discusses Russian quexistentials is Yanovich 2005 (SALT).

Yanovich says that quexistentials are Hamblin indefinites; they are licensed by an appropriately placed operator.

Elsewhere (“Quexistentials I”) we have criticized Yanovich 2005 on a number of points but here the most relevant point is that he does not account (or address) the polarity character of the ex of quex. “Hamblin operators” can be placed in all sorts of environments and there is no reason to suspect that they are polarity sensitive.

(Neither is there a reason why their force should be only existential. Yet, the only non-interrogative use of these allegedly Hamblin pronouns is existential)

[NOTE: the libo-series also differs from the ex of quex:
For example, it is licensed in Wh-questions, the restrictor of a universal, under only.
Lin presents the non-existence condition as a condition on polarity licensing that is broader than DE. However, if one takes existential presuppositions into account, some environments where DE licenses NPIs are excluded for the ex of quex by the non-existence condition.

So it is possible that the ex of quex differs from the libo-series only when it comes to the condition of non-existence.]

So instead, we will assume that the Russian ex of quex is a polarity item with an additional restriction (the non-existence condition) and with a language-particular condition on NPIs (the bagel character).

It should be noted that along with quexistentials, Russian also has “pure” interrogative words. The words for ‘how’ and ‘why’ have only interrogative uses. This is the case for all languages in our sample: along quexistential words, there are also pure interrogative words.

So ‘quexistential’ is a per-item specification, not per language.

When we call Russian a ‘polarity language’, we mean that those items that are quexistential, permit the ex of quex in polarity environments.

In the sample of languages that we have investigated, the polarity group seems to have many members. This means that alongside Q1, the main question about quexistentials, we should also address Q2:

Q1: Why is it that a word that can function as an interrogative can also function as a plain indefinite?

Q2: Why is there in particular a deep connection between interrogative words and polarity items?
As an answer to Q2 we offer the following two speculative suggestions:

Possibility 1:
Both interrogative words and the ex of quex lack strong existential entailments. We saw Lin's non-existence condition for the ex of quex (in Mandarin). Moreover the existential entailments of interrogative words seem easily defeasible:

25. Who, if anyone, managed to solve the problem?

Possibility 2:
Krifka (1995) and Chierchia (2013), among others: polarity sensitive existentials are polarity sensitive because they introduce alternatives. Interrogative words are also usually taken to introduce alternatives (Hamblin 1973, Beck 2006, among others).

It is natural, then, that if interrogative words and SOME type of existential will be two sides of the same lexical item, this type of existential will be the one that shares with interrogative words the property of introducing alternatives (see especially Chierchia and Liao 2014 for this hypothesis).

So much for the polarity group.

There is a group of languages with a broader distribution of the ex of quex than the polarity group. We call this group the undique group, from the Latin word ‘everywhere’. This group includes the Algonquian language Passamaquoddy, as well as Korean. We concentrate on the former.

26a. Piyel ‘kisotomon keq.
   Peter ate QUEX
   ‘Peter ate something’

b. Piyel nomiyal Roger-ol tama.
   Peter see Roger-OBV QUEX
   ‘Peter sees Roger somewhere.’

c. ‘Kisomal wen opanol.
   ate QUEX bread
   ‘Somebody ate the bread.’

d. Wen kisomal opan-ol
   ate QUEX ate bread-OBV
   ‘Someone ate the bread.’

None of the previous sentences are good in Russian. Passamaquoddy and Russian ex of quex do have something in common, though: they are both Wh-moving.

The ex of quex is not possible if the quexistential is in fronted position.
Passamaquoddy does permit one (%) counterexample, and that is when the quexistential is in subject position.

27. Wen kisomat opan-ol
   QUEX ate bread-OBV
   ‘Who ate the bread?’

28. Wen kisomal opan-ol
   QUEX ate bread-OBV
   ‘Someone ate the bread.’

So: ex of quex impossible when the quexistential has moved to the fronted position.

Unlike Russian, Passamaquoddy has no indefinites other than the ex of quex for the meanings ‘someone’, ‘something’, ‘somewhere’

It is therefore not surprising that its quexistentials are not polarity sensitive. If Passamaquoddy had only the quexistentials as indefinites, and it was in the Polarity group of languages, many meanings would be ineffable, like I saw someone, Someone left, etc.

Our informant tells us of a tribal narrative in which the Algonquian language Mi’kmaq is ‘how the elders spoke’. That is, Passamaquoddy has innovated. If this is correct, the following scenario presents itself:

Mi’kmaq has polarity sensitive quexistentials, as well as non-polarity na’t+quex combinations. If na’t is lost, the remaining polarity quex would leave many meanings ineffable, as noted above (e.g., someone left. I saw someone).

To compensate, the quexistential lost its polarity profile. This, however, is mere speculation, since we have no access to historical records.
The main works on Passamaquoddy quexistentials are Bruening 2007, and Bruening and Tsai 2009.

According to these works, the Passamaquoddy quexistential has no quantificational force on its own, but the existential force is provided by the environment.

In Bruening (2007) this is done by existential unselective binding, in Bruening and Tsai (2009) by a Hamblin operator.

The empirical argument that is given for the lack of quantificational force is that Passamaquoddy quexistentials (are argued to) exhibit quantificational variability.

But it is unclear whether the data provided lead to this conclusion. All the non-existential interpretations shown in Bruening (2007) are universal interpretations, rather than quantificational variability involving most (usually), few (rarely) etc. Bruening (2007) does not report such sentences nor were we able to construct any ourselves that our consultant would accept.

However, there are several other ways to get maximality readings without the mechanisms underlying quantificational variability. One of these ways is through free or headless relatives, which English also has, though English does not otherwise have quexistentials:

31. Tan te keq wen-il yah-a-htit, nit te hc eley-ik.
TAN EMPH QUEX QUEX-OBV say.to-DIR-3PCONJ then EMPH FUT IC.happen-ICONJ
‘He who possesses supernatural powers thinks it an easy task to change mere clothing.’ (Mitchell 1976c:7)

33. Mecimi te wen ‘kis-apem-a-l Bobby-wol.
always EMPH QUEX 3-PERF-rely.on-DIR-OBV Bobby-OBV
‘Everyone relies on Bobby.’ or ‘People always rely on Bobby.’

But this is also not evidence that Passamaquoddy quexistentials lack their own force. The second translation given by Bruening can be taken to show that always quantifies over situations and the quexistential is here on its ex of quex use:

34. Msi te keq all EMPH QUEX
‘everything’

35. Msi te wen all EMPH QUEX
‘everyone’

36. Psi te farno all EMPH QUEX
‘everyone’

Another sentence that is used in favor of quantificational variability (B’s 21):

32. Tan keq piluwitposi- t, (’)-nokomasi-tahatom-on tahalu eli
TAN EMPH QUEX have.power-3CONJ 3-easy-think-N like C
acahsia-k loqtewakon-ol.
change-ICONJ clothing-NAANP
‘He who possesses supernatural powers thinks it an easy task to change mere clothing.’ (Mitchell 1976c:7)

31. Tan te keq wen-il yah-a-htit, nit te hc eley-ik.
TAN EMPH QUEX QUEX-OBV say.to-DIR-3PCONJ then EMPH FUT IC.happen-ICONJ
‘Whenever they told someone that something was going to happen, it would.’ (Newell 1979:3)

Another piece of evidence in favour of quantificational variability given by Bruening (2007) is the following:

33. Msi te keq all EMPH QUEX
‘everything’

35. Msi te wen all EMPH QUEX
‘everyone’

36. Psi te farno all EMPH QUEX
‘everyone’

More arguments are provided but, in fact, the only argument that is given for lack of quantificational force that is not easily rebuttable is ife fact that universal quantifiers are constructed from the quexistential with the quantifier psi( te) ‘all’. Bruening says these are constituents:

34. Msi te keq all EMPH QUEX
‘everything’

35. Msi te wen all EMPH QUEX
‘everyone’

36. Psi te farno all EMPH QUEX
‘everyone’

However, as the ex of quex always has narrowest scope, what we may be seeing here is merely the ex of quex scoping under negation, which again is no evidence for quantificational variability.
It is unclear what the status of 'constituent' here means other than that they do not form words like English everyone, everybody etc. Second position clitics can break these up, which they can do with constituents but not words.

But is not a prerequisite for quantificational variability for the binder to form a constituent with the bindee, and typically, in the cases that are used to argue for quantificational variability, it doesn’t. If there is a close linear adjacency requirement on the two, it is unclear how the two relate. While we do not have an alternative derivation for (34-36), the requirement for constituency, as well as the fact that these constructions are only possible with the quantifier meaning 'all', but not with 'many' or 'few', make us hesitate to take these sentences as proof for quantificational variability. More work is required for these.

So we do not take it to be established that Passamaquoddy quexistentials are subject to quantificational variability.

Thus, the data are compatible with the hypothesis that quexistentials in Passamaquoddy are existential quantifiers.

(Moreover, even if they showed QV, this does not mean that they necessarily have to be treated as Heimian variables rather than existential quantifiers. After all, there are various accounts of quantificational variability that treat indefinites as existential quantifiers at birth (see Ebert and Hinterwimmer 2010 and references therein)).

Earlier, we argued that Russian quexistentials have their own quantificational force (contra Yanovich).

We have just argued that Passamaquoddy quexistentials may be assumed to have their own quantificational force as well (contra Bruening, and Bruening and Tsai).

This means that any restricted distribution would be a matter of anti-licensing, and not of licensing by ways of finding a quantificational force in the environment (provided by existential closure operators, adverbs of quantification, Hamblin operators or something else).

This is something to keep in mind now that we come to the third and final group of languages, which we will call the ‘topological group’. The topological group: only Dutch and German (as far as we know).

At first we thought that the topological group should be treated separately from the other two but more and more we are beginning to suspect that Dutch and German (its only members) should be classified with the undique group – but more on this later.

The go-to place for the topological group: Postma 1994

Postma:
• Dutch quexistential wat and the several German quexistentials are variables at birth.
• When the syntactic conditions for question formation are met (e.g. movement to the left periphery), the quexistential/variable is bound by an interrogative operator.
• When the quexistential/variable stays inside the VP, it is bound by an existential closure operator, as in Diesing 1992.
• Postma’s explicit prediction: the ex of quex is possible only inside the VP. (Hence our term ‘topological’ for this group)

And Postma’s proposal indeed captures many facts.

Subject-object asymmetry—not seen in the polarity group (nor undique group)

37a. Iets is gevallen. ‘Something is fallen’
37b. *Wat is gevallen. ‘Quex is fallen intended: ‘Something has fallen’
No scrambling for the ex of quex:

38. Jan heeft snel iets /wat opgeschreven.
   Jan has quickly something / quex written down
   ‘Jan quickly wrote something down.’

   Jan has something / quex quickly written down
   ‘Jan quickly wrote something down.’

No extraposition for ex of quex:

40. Hij zit steeds na te denken over iets/*wat.
    he sits constantly to think about something / quex
    ‘He is always reflecting on something’

But there are several difficulties with Postma’s account.

Diesing/Heim indefinites can be caught by other quantificational elements, producing quantificational variability —which is why Bruening (and Tsai) had attempted to prove QV.

41a. A Norwegian is rarely short. → Few Norwegians are short.
    b. Norwegians are rarely short.  → Few Norwegians are short.

But the Dutch quexistential cannot do this.
(a point that Postma p.c. concedes)

Also, the topological constraint (inside VP) for where the ex of quex is possible is neither sufficient nor necessary.

Not sufficient: focus plays a prohibitive role:

42a. Wie heeft hem wat gegeven?
    who has him quex given
    ‘Who gave him something?’

b. Wie heeft hem WAT gegeven?
    who has him quex given
    ‘Who gave him what?’
    NOT: ‘Who gave him something?’

Not necessary: contrast permits the ex of quex outside the VP.

Contrastive Focus:

43. Hij heeft WEL/ WAT\ snel opgeschreven, maar NIET/ ALLES\.
    He has VF quex quickly written, but not everything
    ‘He did quickly write up something, but not everything.’

44. Hij heeft WEL/ WAT\ snel opgeschreven,
    He has VF quex quickly written,
    maar NIET/ waar we om GEVRAAGD\ hadden.
    but not what we for asked had
    ‘He did quickly write up something, but not what we had asked for.’

And even in the left periphery:

45. Q: What kind of art would you like to have in the living room?

   Wat van VERMEER\ zou ik wel aan de muur willen hebben hangen
   Que by Vermeer would I V视力 on the wall want have hang
   ‘Something by Vermeer I’d like to have on the wall.’

Contrastive topic:

46. What do you think of Dutch painters?

   Ik hou niet van Mondriaan of Rembrandt...
   I love not of Mondriaan or Rembrandt...
   ‘I don’t like Mondriaan or Rembrandt…’

   maar wat van VERMEER/ zou ik wel aan de muur willen hebben hangen.
   but quex by Vermeer would I V视力 on the wall want have hang
   ‘but something by Vermeer I’d like to have on the wall.’
And in subject position:

47. VEEL/ van wat ik op het bord geschreven had was weg...
   Much of what I on the board written had was gone...
   ‘Much of what I had written on the board had gone…’

maar WAT/ stond er nog wel.
   but QUEX stood there still
   ‘but SOMETHING there still was’

[NOTE: the German facts are not to be taken as identical to the Dutch facts]

In short:

Postma’s topological constraint on the ex of quex is not quite as predictive as it seems.

One shortcoming of the Postma account is that it did not control for the general discourse requirements for scrambling indefinites. Once one controls for those, one can see that the ex of quex IS possible outside of the VP.

(though in the appendix we see that a residue remains)

So:

-Ex of quex is possible outside of the VP
-No QV effects

⇒ We reject Postma’s proposal that quexistentials are variables that find their quantificational force in the environment, specifically, from existential closure at the VP boundary.

Instead, we propose that the ex of quex is an existential quantifier at birth.

This permits us a unification with Russian and Passamaquoddy, about which we reached the same conclusion.

In all 3 languages, a quexistential on the ex of quex use is an existential and does not depend on the environment to find its quantificational force.

The restrictions on the distribution of ex of quex are a matter of anti-licensing.

In all 3 languages the ex of quex is anti-licensed in environments where the quexistential would receive the qu of quex reading.

(Dutch may look like a counterexample, given that contrast permits the ex of quex in the left periphery, but it is not because that follows from the fact that it is a V2 language and the word order possibilities that contrast permits)

And there are language-particular constraints on the ex of quex:

Russian ex of quex: as an NPI, anti-licensed in non-DE environments, augmented by the non-existence condition. Also by the language-specific bagel property.

Dutch ex of quex: anti-licensed outside the VP if no provisions are made for the general effects of scrambling on indefinites.

Passamaquoddy: hardly any language-particular anti-licensing

[NOTE: Dutch now looks like it can go in the undique group. It can appear /not appear as a function of general –i.e. non-quex related–constraints on indefinites]

Anti-licensing that all 3 languages have in common.

Despite the differences among the three language (groups), there is one common anti-licensing factor that the ex of quex encounter even in environments where otherwise the ex of quex is licensed.

The ex of quex does not survive focus.

If the quexistential is focused, ungrammaticality results, unless the general set-up of the sentence is such that the quexistential survives on the qu of quex reading.

We chose to present that aspect of the data. In the following stress forces the qu of quex reading:
Russian:  
48a. Vasja čto S'EL  
Vasja quex ate  
‘Did Vasja eat something?’  
NOT: ‘What did Vasja eat?’

b. Vasja ČTO s”el  
Vasja quex ate  
‘What did Vasja eat?’  
NOT: ‘Did Vasja eat something?’

Passamaquoddy:  
49a. wen peciptaq keq?  
quex c.brought quex  
‘Who brought something?’  
NOT: ‘Who brought what?’

b. wen peciptaq KEQ?  
quex c.brought quex  
‘Who brought what?’  
NOT: ‘Who brought something?’

Dutch:  
50a. Wie heeft hem wat gegeven?  
who has him quex given  
‘Who gave him something?’  
NOT: ‘Who gave him what?’

b. Wie heeft hem WAT gegeven?  
who has him quex given  
‘Who gave him what?’  
NOT: ‘Who gave him something?’

(Non-focusability observed for German by Haida 2007 and Truckenbrodt 2013)

Why would focus have this effect on all language groups?

First observation: it is not just that the queexistential cannot be focused on the ex of quex. It cannot even receive nuclear stress.

In Dutch, NS falls on the object. Not doing so and putting stress on the verb means that the verb is contrasted:

51a. Miranda heeft kwark gegeten.  
Miranda has kwark eaten  
‘Miranda ate kwark.’

b. *Miranda heeft kwark geGEten.  
Miranda has kwark eaten  
‘Miranda ate kwark.’  
(* on broad focus; ok w contrast on verb)

But with the ex of quex it is the other way around:

52a. Miranda heeft wat geGEten.  
Miranda has quex eaten  
‘Miranda ate something.’

Miranda has quex eaten  
Intended: ‘Miranda ate something.’

Ruling out stress related to focus on the queexistential will not suffice to rule out nuclear stress on the queexistential. Whatever we would say about focus, then, we would need to say something in addition about the contrast in (52).

The non-que existential iets shows the same behavior:

53a. Miranda heeft iets geGEten.  
Miranda has something eaten  
‘Miranda ate something.’

b. *Miranda heeft IETS gegeten  
Miranda has something eaten  
Intended: ‘Miranda ate something.’

There is, in fact, a general constraint on NS on existential quantifiers crosslinguistically...
... and this has nothing to do with the quexistential status of the ex of quex.

For possible solutions, see Buering 2016 and Wagner 2006.

Whatever the right account is, the pattern involving the quexistential on its existential use, falls squarely within that phenomenon. There is no reason to believe that there is something special about quexistentials on the existential use and their inability to receive nuclear stress.

[As for non-NS contrastive stress, we already saw that this is possible in Dutch when the conditions on contrast are met. (though not for the other languages)]

Since we have argued that there is nothing special about the ex of quex in relation to nuclear stress in default prosody and that its behaviour is not to be distinguished from that of other existentials, one may wonder whether the qu of quex should be similarly treated.

That is, is it possible that on the qu reading, a quexistential behaves just like any other interrogative item?

The answer will be yes, but with some twists and turns.

Recall that on the qu of quex, the quexistential must receive NS:

54a. Wie heeft hem wat gegeven?  
who has him quex given  
‘Who gave him something?’

NOT: ‘Who gave him what?’

b. Wie heeft hem WAT gegeven?  
who has him quex given  
‘Who gave him what?’

NOT: ‘Who gave him something?’

Question:

With NS on the quexistential, does the qu of quex appear simply because the ex of quex is ruled out?

Or is there a more direct correlation between stress and the qu of quex?

We will see that the latter is the case, but again all considerations will apply for interrogative words in general, not just quexistentials on the qu of quex.

In other words, the quexistential on the qu of quex behaves like all interrogatives, the way we saw that the quexistential on the ex of quex behaves like other existentials.

First of all the easy case: a non-quex interrogative word also accepts the NS:

55. Wie heeft hem aan WIE/*wie voorgesteld?  
who has him WHO/*who introduced  
‘Who introduced him to who?’

But interrogative words (whether quexistential or not) require stress even when they would not receive default stress. Consider:

56. Welke sponsoren hebben het museum [een ets van REMbrandt] gegeven?  
which sponsors have the museum an etching by Rembrandt given  
‘Which sponsors gave the museum an etching by Rembrandt?’

To make this a multiple question, the interrogative (again, whether quex or non-quex) needs stress:

57. Welke sponsoren hebben het museum [WAT van REMbrandt] gegeven?  
which sponsors have the museum quex by Rembrandt given  
‘Which sponsors gave what by Rembrandt to the museum?’

In the absence of stress on wat, only the ex of quex is possible:

58. Welke sponsoren hebben het museum [wat van REMbrandt] gegeven?  
which sponsors have the museum quex by Rembrandt given  
‘Which sponsors gave something by Rembrandt to the museum?’
What could the difference be between *een* ets (‘an etching’) and an interrogative word (whether *que* or *not*) such that the interrogative must always be stressed while *een* ets need not be?

The answer to this question can be found if we ask what the effect on the meaning would be if *een* ets were stressed like *wat*.

The effect is contrastive focus wrt a salient alternative:

60. Welke sponsoren hebben het museum [een ETS van Rembrandt] gegeven?
Which sponsors have given the museum an etching by Rembrandt?

In fact, the phonological contours of the second interrogative word (*que* or *not*) in a multiple question is the same as that of contrastive focus.

So it is not just that *qu* of *que* tolerates default stress in the same position where the ex of *que* cannot tolerate it.

The *qu* of *que* requires contrastive focus
-- like any non-fronted interrogative word.

Why would this be?

There are at least two ways in which this question has been addressed in the literature, one syntactic and the other semantic.

Haida (2007) and Truckenbrodt (2013):
- Interrogative phrases must enter into an Agreement relation with a question operator in the left periphery
- This requires the presence of an F-feature on the interrogative phrase, which has the same prosodic reflexes as the F-feature on contrastive foci.
- While both interrogative phrases and contrastive foci must carry an F-feature with the same prosodic reflexes, there are also differences between the two cases.
- Haida: the F-feature on an interrogative must be accompanied by a wh-feature, otherwise Agreement with the question operator is not possible (this prevents non-wh contrastive foci from being interpreted as standing in an Agreement relationship with a question operator).
- Truckenbrodt: the F-feature on interrogatives has a completely different syntactic and semantic status from the F-feature on contrastive foci. What they share is just their prosodic reflexes.

These proposals, while capturing many of the relevant empirical observations, leave a lot to be explained. In particular, they do not clarify why interrogative words generally have to be marked for contrast.

Semantic proposals include those of AnderBois (2012) and Möller Kalpak (2018). We focus here on AnderBois’ proposal.

AnderBois:
- *Quexistentials have both informative content, conveying that there is some individual with a certain property, and inquisitive content, namely the issue of which individual it is that has the given property.*
- The inquisitive content is in some sense *latent*: the issue is only raised if the informative content of the sentence is trivial in the context of utterance.
- When contrastive focus is placed on the *qu*existential, it contributes an existential presupposition, i.e., the presupposition that some individual has the given property, which renders the informative content of the sentence trivial.
- This, in turn, ‘activates’ the latent inquisitive content of the sentence, which results in an interrogative interpretation.
However:
non-quexistential interrogative phrases generally require contrast marking just as much as quexistential interrogative phrases, as we saw.
Since non-quexistential interrogative phrases are always interrogative, i.e., do not allow for a plain existential interpretation, it would be natural to assume that their inquisitive content is not ‘latent’ but surfaces automatically.
Why, then, do such phrases still need contrastive marking?

So far the proposals assume a causal relation between contrastive focus and interrogative interpretation, with the former being necessary for the latter:
59. contrastive marking \implies interrogative interpretation
This is why, for example, Haida has to take care that contrastive focus does not turn non-interrogative indefinites into question words, and AnderBois faces a problem with non-quexistential interrogatives.
We will propose that the causal relationship is the opposite:
60. interrogative interpretation \implies contrastive marking

’Maria heeft Piet uitgenodigd (Maria invited Piet) contrasts with ’Maria heeft Tom uitgenodigd (Maria invited Tom), and this contrast is signaled by a focal accent on ‘Piet’.
Rooth 1992, Kratzer and Selkirk 2018 and many others: in order to mark some constituent E as contrasting with another constituent E’, a speaker places focus on sub-constituents of E in such a way that the focus semantic value of E has the ordinary semantic value of E’ as one of its elements.
62. \[ \{ [ ze heeft Piet uitgenodigd ]_o , [ ze heeft Tom uitgenodigd ]_o , [ ze heeft Kim uitgenodigd ]_o , etc. \} \]

Now consider a question:
63. Who left?
This question can be resolved in a number of ways: ’Bill left’, ’Sam left’, etcetera. What is important, we propose, is that these various possible resolutions contrast with each other in much the same way as ’Maria invited Tom’ and ’Maria invited Piet’ in the dialogue earlier.
Let us make this more precise again. Semantic theories of questions usually assume that the ordinary semantic value of a question is a set of propositions.
64. \[ \{ [[ (63)]_o ] , [[ Bill left ]_o , [[ Sam left ]_o , etc. ] \} \]
[Bill left] contrasts with [Sam left] (as well as the other propositions in the set).

This contrast can be signaled by placing contrastive focus on subconstituents of the question in such a way that the focus semantic value of the question contains both [Bill left] and [Sam left] (as well as all the other propositions in the ordinary semantic value).

This means placing contrastive focus on ‘who’.

We assume that in English, like in Dutch, contrastive focus on wh-words manifests itself either as movement to a designated position in the left periphery (Truckenbrodt 2013), or prosodically, or both.

In (63) prosodic marking of focus is not necessary because the wh-word has moved to the left periphery, but in the case of in-situ interrogative words prosodic marking of contrastive focus is necessary.

We propose that the speaker places focus on sub-constituents of E in such a way that the focus semantic value of E includes two (non-identical) alternatives a and b such that:

- a is an element of the ordinary semantic value of E
- b is an element of the ordinary sem. value of E or another expression E’ in C.

We identify two special cases:

- In one case, b is an element of the ordinary semantic value of some expression E’ other than E. In this case we say that the contrast is external. This is the known Roothian notion of contrast.
- In the second case, b is an element of the ordinary semantic value of E itself. In this case we say that the contrast is internal. This is the case of questions.

We have argued that all qexistentials are at base existential quantifiers (3).

The fact that both are subcases of a single more general notion makes it natural for languages to mark them in the same way, although it is also imaginable that certain languages make a distinction in how they mark internal and external contrasts.

In other words, we now have an account that captures why interrogative words (whether qexistential or non-qexistential) that are not fronted, have the same falling pitch accent as contrastively focused items.

[NOTE: the proposal by Truckenbrodt that fronting is a manifestation of contrastive focus also captures why when fronted, the qu of quex can only receive the qu of quex reading. We saw that this holds even in Passamaquoddy]

In short:

We saw that the ex of quex does not tolerate stress in the same position where the qu of quex receives not just NS, but in fact contrastive focal stress.

This contrast has nothing to do with the qexistential nature but follows from general properties of the two “guises” of the qexistential.

On the ex of quex, stress is not possible as it is not on any existential quantifier under broad focus, and there exist some proposals for that.

On the (non-fronted) qu of quex, contrastive stress is required as it is on any interrogative word, and we proposed an analysis of this phenomenon.

So:

Qexistentials are existential quantifiers at birth.

On the ex of quex there is nothing unusual about them wrt other existentials.

On the qu of quex there is nothing unusual about them wrt other interrogatives.

What is unusual about them is their lexical properties, which permit them to behave like the one or the other, if conditions are appropriate (i.e. there is no anti-licensing in the environment, like non-DE, contrastive stress, etc)

So, what then are the lexical properties of qexistentials?
So we have the following division in the domain of existentials:

\[
\begin{align*}
\exists & +A & -A \\
Q & & EXH
\end{align*}
\]

This permits us to characterize the different types of quexistential and other indefinites.

Russian:
- Quex: \(\exists, +A, Q/EXH\)
- Kak 'how', pochemu 'why': \(\exists, +A, Q\)
- Libo-series: \(\exists, +A, EXH\)
- To-series: \(\exists, -A\)

Dutch:
- Quex: \(\exists\), either +A or –A.
  When +A, Q only
  wie 'who': \(\exists, +A, Q\)
- Iets: \(\exists, -A\)
  (Passamaquoddy has same profile as Dutch)

• Appendix: The Dutch residue

Recall Postma's analysis: wat is a variable, iets is an existential quantifier. We rejected this analysis and argued that wat is also an existential quantifier. This means that iets and wat are more alike, and indeed this holds for a variety of tests, including, their scopal properties.

However, there are also differences between them. Some of them may well be irrelevant to the present debate, that is they do not speak to whether Postma or we are right about the variable vs quantifier nature of wat. Some of the differences do speak to that, though.

Here are some differences that are possibly irrelevant to the current debate:

Wat, but not iets, can be a determiner:
- wat boeken, wat water. (some books, some water)
- *iets boeken, iets water

Wat, but not iets, can be a degree quantifier:
- Deze vaas is wat groot.
- Deze vaas is wat groter dan die.
- *Deze vaas is iets groot.
- Deze vaas is iets groter dan die.
- *Deze vaas is iets te groot.

(This vase is somewhat large)
(This vase is somewhat larger than that one)
(This vase is somewhat too large)
(This vase is somewhat larger than that one)
(This vase is somewhat too large)
The differences between *iets* and *wat* that are relevant, relate to some of Postma’s original discoveries.

- in subject position:

37a. *iets* is gevallen.

   something is fallen
   ‘Something has fallen.’

b. *Wat* is gevallen.

   que is fallen
   intended: ‘Something has fallen’

- scrambled or extraposed from the VP:

38b. Jan heeft *iets/*wat snel opgeschreven.

   Jan has something/*que* quickly written-down
   ‘Jan quickly wrote something down.’

39. Hij zit steeds na te denken over *iets/*wat.

   he sits constantly to think about something/*que*
   ‘He is always reflecting on something’

We saw that *wat* can be in subject position or scramble out of the VP when it is in contrast with an overtly named alternative. The following sentence shows that the same holds with extraposition:

Hij heeft vast wel goed nagedacht over *wat,*

He has probably well thought about *que*

maar waarschijnlijk niet over ALLES.

But probably not about everything

‘He has most likely thought carefully about something, but not about everything’

So like *iets*, *wat* can appear outside the VP (in subject position, scrambled, or extraposed) but it needs an overt contrast, unlike *iets*.

What could this difference be due to?

When it comes to being non-specific/first-mention indefinites, *iets* and *wat* behave alike. They cannot be scrambled or extraposed, and if they are an external argument, the expletive *er* must be present for both:

Kijk! Er ligt *wat/iets* op de stoep. (Look! There’s something on the sidewalk)

Kijk! *Wat/iets* ligt op de stoep.

So in non-specific contexts *iets* and *wat* behave alike.

When the context licenses specificity, they behave differently, and those are the contexts where *iets* can appear in subject position, scramble or extrapose.

One might venture a guess that *wat* cannot be specific, but that is not so. It can behave as a specific on a variety of tests, like partitive specificity (Enç, Diesing):

- Context: Amy and Ben are at a catered party.
- Amy: Look at all that food on the table. It looks delicious.
- Ben: Ik heb al *wat* gegeten. Het was  inderaad heerlijk.
  I have already *que* eaten. It was indeed delicious.

   ‘I have already eaten something (of it). It was indeed delicious.’

In other words, we do not yet know why *iets*, unlike *wat*, can in certain contexts leave the VP in the absence of contrast, but it does not seem to be a matter of (in)compatibility with specificity.

This is future work...