Quexistentials I [*]

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February 2018

*Please cite with the title as given, as there are also other parts.

In many languages (e.g. English), interrogative words look different from existential quantifiers:

1a. <u>What</u> did you eat?
 b. You ate <u>something</u>

In other languages, the existential indefinite is morphologically composed from the interrogative word, as in Greek (famously studied in Japanese):

2a. Ti efages?
      what   ate.2sg
      'what did you eat?'

 b. Efages kati
      ate.2sg something
     'You ate something'

Pios → kapios
Who   someone

Pote →   kapote
when   sometime

etc

What interests us is languages where the the existential and the interrogative words are identical. We will refer to these words as "Quexistentials". (question+exisntential)

For example, Dutch:

3a. Wat heb je gegeten?

    what have you eaten

 b. Je hebt wat gegeten.

    You have what eaten

    'You have eaten something'

We do not use the existing term 'wh-indefinite' as this has been used for a larger class of indefinites crosslinguistically, including eg Japanese, where the indefinite requires –ka locally, but the question word does not. Moreover, 'wh-indefinite' refers to indefinites only, whereas 'quexistential' covers both the indefinite and the interrogative uses.

One could say that there is a covert morpheme that is attached to the interrogative word to yield the indefinite:

4.   Wat + ø → iets/something

But in addition to this being uninspired, it makes wrong predictions.

-(Non-Quex) indefinites, like the Greek and Japanese ones, can appear anywhere in the sentence. Dutch quexistentials cannot. For example, they cannot appear in subject position on the Ex reading:

5a. Iets is gevallen
     something is fallen

  b. *Wat is gevallen
     what is fallen   intended: 'Something is fallen'

- And even in object position, there are constraints on where the Wh-indefinite can appear (Postma 94):

6a. Jan heeft **snel   iets** opgeschreven
    Jan has **quickly something** written

  b. Jan heeft **snel wat** opgeschreven
    Jan has **quickly what** written =Jan has quickly something written

  c. Jan heeft **iets snel** opgeschreven
        something quickly

  d. *Jan heeft **wat snel** opgeschreven
        what quickly

In general, what we see in languages with quexistentials is that there are syntactic restrictions on where they can appear on the Ex reading. (And of course there are also restrictions where they can appear on the Q reading.)

This means that we cannot consider quexistentials equivalent to non-quex-indefinites, which have, broadly speaking, no restrictions on their position.

Questions:

- How/why can one and the same word be interpreted sometimes existentially, sometimes to form a question? What does this say about their lexical semantics?
- Why only in certain syntactic positions?
- Were does the existential force in the Ex reading come from?

The fact that the Ex reading of quexistentials is licensed only in certain environments can be, and has been, taken to mean that the Ex part of their meaning is not completely part of their lexical semantics but needs licensing from the outside.

It is a small step from there to the position that the existential force is provided by the environment.

Which means that the quexistential itself is capable of receiving this existential force.

Which could mean that the quexistential is a variable that ends up being bound by an existential quantifier present in the environment.

And this is the proposal of Postma 1994 for Dutch and German.

Dutch *wat* and a number of German quexistentials are variables.

When the syntactic conditions for question formation are met (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 a default mechanism of existential closure.

The precedents of this existential closure go back to Heim 1981 and Diesing 1992.

Heim 1981: indefinites are variables, not existential quantifiers.

Then what happens here:

7. Every boy has a dog

8a.   [every boy]$_k$ [$_{IP}$ t$_k$ has a dog]

  b.   every$_j$ [t$_j$ boy]$_k$ [$_{IP}$ t$_k$ has a dog]

  c.   every$_j$ [t$_j$ boy]$_k$ [$_{IP}$ t$_k$ has a dog]

            Q   Restrictor   Scope

  d.   every$_j$ [t$_j$ boy]$_k$ [$_{IP}$ t$_k$ has dog (x)]

→ Existential Closure on the Scope of a Q

  e.   every$_j$ [t$_j$ boy]$_k$ ∃$_x$ [$_{IP}$ t$_k$ has dog (x)]

So the domain of existential closure is semantically defined: it is the scope of a quantifier. Any unbound variables in the <u>scope</u> of a quantifier will be bound by this default closure mechanism.

This default closure is unrestricted and gives the variables it binds narrowest scope with respect to any quantificational elements in the sentence. In effect, it creates only non-specific indefinites.

What is the syntactic domain of this existential closure?

When Heim was writing, the common belief was that subjects are base-generated in the SPEC of IP. Since the scope of a quantifier must minimally contain the subject of the clause, the scope of a quantifier had to be the IP.

So for Heim, the syntactic domain of existential closure was the IP.

Diesing 1992 accepts Heim's ideas of a default existential closure mechanism on the scope of a quantifer.

But Diesing writes after the advent of VP-internal subjects. This means that the scope of a quantifier can be as small as the VP.

Hence she can propose that the syntactic domain of existential closure is the VP.

Diesing's 1992 book is a series of constructions in different languages that have the property that non-specific indefinites stay inside the VP.

In parallel, specific indefinites have to raise out of the VP to create a restrictor, because they are quantificational.

Over the years, there has been more support brought forth for the position that there is a division in the topological placement of indefinites and that it is roughly around the VP.

(it has been disputed whether the dividing line is EXACTLY at the VP cut-off line, a dispute augmented by the lack of consensus of how many functional projections there are in that area)

For Postma, it is this default existential closure that is the source of the existential interpretation of the quexistential.

As long as the quexistential remains inside the VP, it can be caught by existential closure. If it leaves the VP, it cannot.
This explains the status of (5b):
5b. Wat is gevallen =/= Iets is gevallen
    what is fallen   =/= something is fallen

The same holds for any other extra-VP placement. Compare *iets* with *wat*:
9a. Jan heeft **snel   iets** opgeschreven
    Jan has **quickly something** written

  b. Jan heeft **snel wat** opgeschreven
    Jan has **quickly what** written =Jan has quickly something written

10a. Jan heeft **iets snel** opgeschreven
          something quickly

  b. *Jan heeft **wat snel** opgeschreven
       what quickly

11a. Heb je **echt niet iets** gedaan?
   Have you **really not something** done

  b. Heb je   **iets**   **echt niet** gedaan?
   Have you **something really not** done

12a. Heb je **echt niet wat** gedaan?
   Have you **really not what** done = Have you really not something done

  b. *Heb je **wat echt niet** gedaan?
    *Have you **what really not** done   int: Have you something really not done

'Have you really not done something?' (translation Postma's)

You can never disturb Teun…

'He is always reflecting on something'

13a. Hij zit steeds **over iets na te denken**   VP-internal

He sits constantly **over something to think**

  b. Hij zit **over   iets** steeds na te denken   scrambling

   He sits **over something** constantly to think

  c. Hij zit steeds na te denken **over iets**   extraposition

   He sits constantly to think over something

14a. Hij zit steeds over wat na te denken   VP-internal

He sits constantly **over what to think**

'He is always reflecting on something'

b. *Hij zit over wat steeds na te denken   scrambling

He sits **over what** constantly to think

c. *Hij zit steeds na te denken **over wat**   extraposition

He sits constantly to think **over what**

So: By appealing to the VP-location of Heim's/Diesing's default existential closure, Postma can capture both the topology of the phenomenon, and also predicts necessarily non-specific interpretation and narrow scope of the quexistential (we will return to issues of scope).

The lexical status of the quexistential which can undergo this phenomenon would then have to be that of variables.

This means that Dutch *wat* is such a variable, but other Dutch-wh-words not, because they do not show this behaviour:

15. *Ik heb wie gezien   =/= I saw someone

(In German, there are many more quexistentials. In fact, all wh-words are quexistentials except *how* and *why*)

So the Postma account:

It captures the placement, non-specific nature and narrow scope of quexistential

Unfortunately, it also has some disadvantages.

Diesing's implementation of Heim's insight of indefinites as variables, is supported by a range of data that include the indefinite variable being caught by

any quantificational element that is appropriately situated:

16a. A Norwegian is rarely short → Few Norwegians are short
    b. Norwegians are rarely short → Few Norwegians are short

So if Dutch *wat* is a Heim/Diesing indefinite, it should be able to be bound by quantificational elements other than default existential closure. But this is not so.

Postma (p.c.) accepts this criticism and constructed the following sentences that prove the point:

17a. *Jammer genoeg maakt wat mij **altijd** bang   (int: all things scare me)

      pitty enough   makes what me always afraid

  b. *Jammer genoeg maakt wat mij **vaak** bang   (int: most things scare me)

  c. *Jammer genoeg maakt wat mij **soms** bang (int: some things scare me)

  d. *Gelukkig maakt wat mij **zelden** bang   (i.e. some things scare me)

    Fortunately makes what me seldom afraid

  e.*Gelukkig maakt wat mij **nooit** bang (i.e. no things scare me)

This is a serious question for the account. These sentences are fine on the intended meaning with *dingen* ('things').

(One might also venture the reverse criticism that English indefinites cannot be caught by the Interrogative operator, the other side of Postma's account but this may be more easily dealt with)

An important tenet of the Postma account is that solely the placement of *wat* determines its interpretation. It is either caught by the Wh-operator or by existential closure. It cannot appear in the middle field because only specifics can appear there. Other differences are not predicted. But there are:

18a. Zij heeft wat lekkers gegeten

    'She ate something tasty'

  b.. *Wat lekkers heeft zij gegeten?

     What tasty has   she eaten

Sentence (18b) is ungrammatical but it should be good and should be able to mean 'What tasty thing did she eat?'

And reversely, there are occurrences of *wat* in questions that cannot make it on the Ex reading of the quexistential:

19a. Wat voor lekkers heb je gegeten?

　　 what for tasty have you eaten

　 b. * Je hebt wat voor lekkers gegeten

　　　 You have what for tasty eaten

We take the lack of quantificational variability of the Dutch and German quexistentials to be a fatal problem for the account that analyzes them as variables which are existentially closed by elements in the environment.

We take the lack of QV to argue that quexistentials are born with existential force, which we do in later developments of this project.

But then the question of the syntactic restrictions on the Ex-reading comes up again, of course, since it is not possible to appeal to syntactic restriction of existential closure anymore.

Moreover, Postma's account does not capture the distribution of quexistentials in other languages.

Russian has quexistentials, and like Dutch, the possibility for their Ex reading is syntatically restricted.

However, the environments in which Russian quexistentials are licensed on the Ex reading are different than in Dutch and German. Crucially, being inside the VP does not suffice:

20. Vasja   s'jel   čto
     Vasja   ate   what
   =/= 'Vasja ate something'

So what are the environments in which the Ex reading of Russian quexistentials are licensed?

These include:

-Yes/No questions (NOT Wh-questions)

-the antecedent of a conditional

-certain epistemic predicates

-certain comparatives

From the above list one might think that a licensing factor is Downward Entailment, but other known DE environments are not licensors:

The restrictor of a universal does not license the Ex-reading:

21. *Kazhdyj kto sjel shto, ostalsja dovolen

     everybody who ate what, remained satisfied

    int: 'Everybody who ate something remained satisfied'

Clausemate negation does not do it:

22. *Ja ne videl kogo

    I NEG saw who

    Int: 'I did not see anybody.'

Yet, external negation does:

22a. Ja ne dumal, čto Vasja kogo uvidel

       I NEG thought that Vasja whom saw

       'I didn't think that Vasja saw anybody.'

  b. Ne poxože, čto Vasja kogo uvidel

     NEG similar that Vasja whom saw

     'It does not look like Vasja saw anybody'

There are two ways to capture the contrast between (21) and (22, 23):

Russian is a bagel-language or external negation creates a licensing epistemic predicate.

Antecedent of a conditional:

24a.   esli (kto) pridet (kto), daj mne znat'
        if   (who) comes (who), give me to.know
        'If somebody comes, let me know'

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

But not in the consequent. One would have to use a composed indefinite:

25.   esli on ne pridet, ja ub'ju kogo-nibud' / *kogo
        if he NEG comes I will.kill who-INDEF / *who
        'If he does not come, I will kill somebody / *who'

The Ex reading is licensed in Yes/No questions, but note that the Wh-word cannot be sentence-initial. If it is, only the question interpretation is possible, just as in Dutch and German:

26. prišel kto   (focus must be on *prišel*)

    came who

    'Did somebody come?'

     NOT 'Who came?'

27. Kto prišel

    who came

    'Who came?'

    NOT 'Did somebody come?'

With a transitive predicate (Note that focus is important again)

28. Čto Vasja s''el

what Vasja ate

'What did Vasja eat?'

NOT 'Did Vasja eat something?''

29a. Vasja ČTO   s''el

Vasja WHAT ate

'What did V. eat?'

NOT 'Did Vasja eat something?'

b. Vasja čto   S''EL

Vasja what ATE

'Did Vasja eat something?'

NOT 'What did V. eat?'

30a. Vasja s''el ČTO?

   Vasja ate WHAT

   ? 'What did V. eat?'

   (OK echo-question)

   NOT 'Did V. eat something?'

b. Vasja S''EL čto?

   Vasja ATE what

   'Did Vasja eat something?'

   NOT 'What did V. eat?'

Embedded Yes/No questions also license the Ex reading of quexistentials. The clitic *li* is the embedded Y/N question marker:

31a.   Vasja sprosil, (ne) prixodil li kto.

V. asked NEG came LI who

'Vasja asked if somebody came'.

  b.   Vasja sprosil, (ne) videl li on kogo.

V. asked NEG saw LI he whom

'Vasja asked if he saw somebody'.

But while other constituents can appear before *li*, the quexistential (as other indefinites) cannot.

32a. Vasja sprosil, (ne) Kolja li prixodil.

       V. asked (NEG) K. LI came

       'V. asked if it was K. who came'

  b. *Vasja sprosil, (ne) kto li prixodil.

       V. asked NEG who LI came

  c. *Vasja sprosil, (ne) kogo li on videl.

       V. asked NEG whom LI he saw

Wh-questions (matrix or embedded) do not license the Ex reading of quexistentials:

33a.   kto čto s''el?
       who what ate
       'Who ate what?'
       NOT 'What did somebody eat'.
       NOT 'Who ate something?'
       (word order makes no difference)

  b.   V. sprosil, kto čto s''el
       V. asked who what ate
       'V. asked who ate what.'
       NOT 'Vasja asked what somebody ate'.
       NOT 'Vasja asked, who ate something'
       (word order makes no difference)

Here is a point of important comparison with Dutch and German:

Dutch:

34a. Wie heeft wat gegeten?
   who has what eaten
   'Who ate what?'
   'Who ate something?'

Russian:

33a. kto čto s''el?
   who what ate
   'Who ate what?'

However, focus on *wat* in Dutch disambiguates:

34b. Wie heeft WAT gegeten?
   who has WHAT eaten
   'Who ate what?'
  NOT: 'Who ate something?'

So here we can state a generalization over Dutch and German and Russian (and any other language that we have looked at):

Focus blocks the Ex reading:

A quexistential cannot receive receive an Ex-interpretation if it is focused, even if otherwise the environment in which it appears is in principle a licensor of the Ex-reading.

What we have also seen in Russian, Dutch and German is that fronted quexistentials can only receive a Q-reading. If one is convinced that on the Q reading, the quexistential is always focused, then this fact follows from the above generalization. Otherwise, the obligatory Q-reading of the fronted quexistentials have to receive a different explanation.

Back to Russian:

Certain epistemic predicates also license the Ex reading:

35a. Možet,   kto prixodil   (Yanovich 2005)
    It may be that who came
    'It may be that someone came'

But it is difficult to understand which ones do and which ones don't:

   b. *Dolzno byt', kto prixodil.   (Yanovich 2005)
       It is likely that who came
      'It is likely that someone came.'

Finally, there is a particular comparative construction where the Ex-reading of the quexistential is licensed:

36a. Ja voz'mu chto poluchshe

    I will.take what po-better

    b. I will take something better

    c. I will take whatever is better

Note that the above is ambiguous between an EX-reading (b) and the free relative reading (c), which brings in maximality, i.e. *I will take all the things that are better*. The latter is possible with a relative clause-type structure on the Wh-word, as in many languages.

So it is clear that licensing environments of the Ex reading of Russian quexistentials, are different from Dutch and German.

Yanovich 2005 is an account of Russian quexisentials (he does not discuss *po*-comparatives)

He argues that what we call quexistentials are Hamblin pronouns.

The term "Hamblin pronouns" is Yanovich's. One can also call them "Hamblin indefinites".

Yanovich lists the following properties as those that an element must have to qualify as a Hamblin pronoun:

H1. Hamblin pronouns need a licenser. They always (pseudo)scope in the immediate scope of their licensor.

(H2. Hamblin pronouns licensers are alternative quantifiers)

H3. The pseudoscope of Hamblin pronouns is island insensitive

H4. Hamblin pronouns must associate with the nearest licensor

He argues that Russian quexistentials exhibit all the properties.

H1. Hamblin pronouns need a licenser. They always (pseudo)scope in the immediate scope of their licensor.

We have already seen Russian quexistentials need a licensor. The following shows that they scope in the immediate scope of their licensor:

37a.   Razve kaidyj mal'cik videl kogo?
        is-it-true-that every boy saw who

   b. NO: ∃ > Q > every
        'There is a person, and is it true that every boy saw this person?'

   c. Q > ∃ > every
        'Is it true that there is a person that every boy saw?'

   d. NO: Q > every > ∃
        'Is it true that every boy saw some person or other?'

The data above are from Yanovich's paper. We have not been able to duplicate them.

Sergei Tatevosov's (p.c.) judgments: *b, *c,   ok: d

H3. The pseudoscope of Hamblin pronouns is island insensitive

38. Razve Petja citaet knigu kotoruju kto uze bral?

Is-it-true-that Petja reads a book that who already took?

'Is it true that Petja read the book that someone (just anyone) had

borrowed before (from the library)?'

However, there is a confusion here: being licensed from outside an island and scoping out of an island are not the same thing.

Yanovich predicts that there should be a reading where *someone* scopes right under *is it true? :*

38'. Is it true that there is a person x such that Petja read the book that x borrowed.

We have not found this to be borne out (including in Yanovich's judgments). This means that there is no evidence here that in Russian the Ex interpretation of quexistentials is island-insensitive.

Moreover, the following also confirms that scope outside an island is not possible:

In a world where 6 people got sick from eating bad syrniki and 3 people got sick because they ate bad yogurt, would the following question get a Yes or No answer?

39. Shto, rovno troje studentov zaboleli, potomu shto sjeli shto

"Is it true that exactly three students got sick because they ate what?"
  ok: exactly 3 > something   answer: NO
 not available: something > exactly 3   answer would have been YES

So Ex-reading of Russian quexistentials does not get out of an island.

H4. Hamblin pronouns must associate with the nearest licensor

40. Razve Petja ujdet esli kto pozvonit?

    Is-it-true-that Petja will-leave if who calls?

    NO: $\exists$ > if (There is a person x such that Petja will leave if x calls)

       if > $\exists$ (if whoever calls, Petja will leave)

But H4 has value only if it is established that a quexistential can scope outside of an island on its Ex interpretation, which as we saw, has not been established: in (39') the Ex of quexistential cannot scope outside an island. Since in (40) one licensor is inside the island and the other outside, and the quexistential can scope only under the island-internal one, we don't know anything more with (40).

43

- Yanovich argues for a Hamblin semantic treatment of quexistentials but acknowledges that it is unclear why certain environments contain Hamblin operators and some not.

- Neither is it clear why the Hamblin operator that catches the alternatives introduced by the quexisnetial should be of existential force only crosslinguistically.

- Regardless of whether Yanovich is correct for Russian, it is clear that Russian and Dutch have a very different pattern of distribution of quexistentials.

- While Russian quexistentials do not seem to have attracted much attention (the one exception is Yanovich), a number of people have explored their distribution in Mandarin. We turn to that next.

The basic properties of some of the accounts about Mandarin have something in common with Postma's account of Dutch and Yanovich's of Russian: the quexistential does not have existential force of its own. The existential force is provided by the environment. In some Mandarin accounts (explicitly Cheng 1994), the existential force is provided by existential closure on the VP, as in Postma. (However, Lin 98 shows that Ex reading of the quexistential can also appear in subject position, contra Cheng and a Diesing-based account)

However, the above accounts of Mandarin bring in an additional ingredient of where quexisntentials can appear: they are polarity items and need to be licensed as such. While the licensing environments are weaker than Downward Entailment, the idea is that they are on that spectrum.

In short: Mandarin quexisntentials need to be licensed as polarity items and because they are variables they need to be bound by elements in the environment.

Lin's 1998 proposal for the distribution of Mandarin quexistentials:

Non-Entailment-of-Existence Condition on quexistentials
The Ex-interpretation of a quexisnetial is felicitous iff the proposition in which the quexisntential appears does not entail existence of a referent satisfying the description of the quexistential.

The following data and discussion are from Lin 1998 but see references cited there for additional sources. Precursors of this type of account are Li 1992 and Cheng 1994 among others.

Quexistentials in Mandarin fall in 3 groups depending on whether they can tolerate or prefer classifiers in combination with the quexistential.

Group A: classifier impossible

-in the scope of negation

-in the antecedent of conditionals (not in the consequent)

-anywhere in Y/N questions   (and in the scope of A-not-A questions)

This pattern seems different from the Dutch but very close to the Russian one.

The difference is that clausemate negation is not a licensor in Russian. (And of course Russian does not have A-not-A)

Here are some actual sentences:

Negation:

41. Wo mei mai (*ge) shenme (dongxi)
     I not buy (*Cl) what (thing)
     'I didn't buy anything.'

Antecedent of conditional:

42. Yaoshi shei/shenme ren qifu ni, . . .
     if who/what man bully you
     'If somebody bullies you, . . .

Y/N question:

43. Shei you qifu ni le ma?
     who again bully you Asp Q
     'Did somebody bully you again?'

As in Russian, Wh-questions do not license the ex reading of the quexistential:

44. Shei/shenme ren xihuan shenme?

    who/what man like what

    'Who likes what?'
    NOT 'What does somebody/anybody like?'

    NOT 'Who likes something/anything?'

- Group B: classifier not obligatory but possible ("More precisely, a classifier may (sometimes) increase naturalness, but this is not essential" Lin 222)

Epistemic modality

45. Keneng/xiangbi shei you qifu ta le

   possibly/most probably who again bully him Asp

   'Possibly/most probably, somebody bullied him again.'

46. Haoxiang shei qifu ta (de-yangzi)

   seem who bully him (seem)

   'It seems that somebody bullied him.'

47. Ta kandao shenme le   (*le* is an inference marker here)

    he see what   Asp

   '(It seems that) he saw something.'

Under certain non-factive epistemic verbs (Lin's description of Li 92)

48. Zhangsan yiwei/renwei wo mai-le shenme, (keshi wo

    Zhangsan think/think I buy-Asp what (but I

genben mei mai renhe dongxi)

at-all not buy any thing

'Zhangsan thinks that I bought something, (but I didn't buy anything at all).'

49. Wo huaiyi tiandi-xia you shei xiang ni zheme sha de

 I doubt under-the-sun have who like you this silly Par

 'I doubt that there is anybody as silly as you under the sun.'

Group B shows a vague similarity with Russian in that some epistemic predicates are also licensors in Russian.

Group C: classifier is obligatory

Environments with Future-orientation:

-Modals:
50. Wo mingtian hui qu mai *(ge) shenme dongxi song ta de
    I tomorrow will go buy *(Cl) what thing give him Par
     'I will go to buy something for him.'

Imperatives:
51. Guo-lai chi *(dian) shenme ba!
     Come eat *(Cl)   what Par
     'Come over to eat something.'

Future-oriented verbs:

52. Wo xiawu dasuan qu mai *(ben) shenme shu lai kan

    I this-afternoon plan go buy *(Cl) what book come read
  'I plan to buy some book to read this afternoon.

53. Wo qu zhao *(ge) shenme ren lai bang ni

    I go find *(Cl) what person come help you

  'I will go find someone to help you.'

Group C seems to hold no similarity with the Russian pattern.

Lin's 1998 proposal for the distribution of Mandarin quexistential

Non-Entailment-of-Existence Condition on quexistentials
The Ex-interpretation of a quexisnetial is felicitous iff the proposition in which the quexisntential appears does not entail existence of a referent satisfying the description of the quexistential.

Lin does not say much about the roles of classifiers and the homophony with interrogative uses is not capitalized on.

However, the latter is discussed in great length in Cheng 1994:

When the quexistential forms a question, the (polarity) quexisntentials are both licensed and bound by the question marker (Question operator)

On the Ex reading of the quexistential, the item is licensed by DE and bound by existential closure à la Diesing.

In other words, Cheng 1994 and Lin 1998 for Mandarin are similar to Postma 1994 for Dutch and German: quexistentials are variables that are existentially closed by a default closure mechanism.

(For Lin 2004 the existential force comes from existential closure on a choice function variable.)

The difference is that for Cheng and Lin, Mandarin quexistentials are polarity items in addition, so they cannot appear in an affirmative sentence, as in Dutch *Ik heb wat gegeten*, as that is not a licensing environment.

Notes:

--This account of quexistentials as polarity items differs from common accounts of NPIs, where the existential force is part of the lexical semantics of the items.

--We saw that in Russian, the Ex-reading is not licensed in the restrictor of a universal quantifier (which as surprising, especially given that it is licensed in the antecedent of a conditional). What about Mandarin? There seems to be disagreement in the data. Our own "fieldwork", as well as Chierchia and Liao 2015 says that the restrictor of a universal is not a licensor. However, Jing Lin 2017 assumes that it is.

--If Mandarin quexistentials are variables, one would expect QV. Cheng and Cheng and Huang argue that there is QV but the relevant examples may well be correlatives, which have a universal force for different reasons. So more is needed there.

Lin's (and Cheng's) proposal are clearly not applicable to Dutch and German.

Is it applicable to Russian? The environments where Russian permits the Ex reading of the quexistential has an overlap with the Mandarin licensing environments.

- Mandarin permits the Ex reading of quexistentials in a much broader array of environments that fit Lin's proposal but that are not licensors in Russian. We already saw a number such cases, here is another one, under the verb *pretend*, which is possible in Mandarin, but not in Russian:

54. (Zhangsan lai de-shihou) wo jiazhuang zai zuo

   (Zhangsan come when)   I pretend Prog do

      shenme shiqing mei kan-dao ta

      what thing not see him

      'When Zhangsan came, I pretended that I was doing something and didn't see him.'

However, the environments that we have seen that do license the Ex reading of Russian quexistentials iare amenable to Lin's account. In none of them is existence of the item entailed. And this effect can even be seen also in the po-comparatives:

Recall what we had earlier:

55a. Ja voz'mu chto poluchshe

      I will.take what po-better

  b. I will take something better

  c. I will take what is better

In an indicative past perfective sentence the Ex reading is not possible:

56a. Ja vzjal chto poluchshe

    I took what po-better

  b. NOT I took something better

  c. I took whatever is better

So, so far Russian seemed to license the Ex reading of quexisentials in a proper subset of the Mandarin environments, and so is compatible with Lin's account.

However, this is not the right overall picture.

There is one environment where Russian permits an Ex-reading where Mandarin does not. And this environment is (correctly) not compatible with Lin's description of the licensing environment.

Moreover, this is an environment that Russian and Dutch have in common. We turn to this next.

Modal Existential Constructions and Modal Possessive Constructions:

57a. Ik heb wat te eten

    I have what to eat

   roughly: "there is something that I can eat if want/have to eat"

  b. Er is wat te eten

    There is what to eat

 roughly: "there is something to eat if want/have to eat"

This construction is possible with a very small class of verbs: *have* (existential/possessive *have*) , *find.*

Not for example, with *buy* (at least in Greek).

58a. U Maši est' čto počitat'.   (Livitz 2012)

   at Mary.GEN is what.ACC read.INF

   'Mary has something to read.'

  b. Maše est' čto počitat'.   (Livitz 2012)

   Mary.DAT is what.ACC read.INF

   'There is something for Mary to read.'

In Mandarin they are out (Lin p.c.):

59a. *Mali you shenme (keyi) chi

  Mary have what   (may) eat

  b. *You shenme (keyi) chi

   have what   (may) eat

MECs are analyzed in Izvorski 2000, Simik 2011 among others

And MPCs, with an emphasis on Russian, in Livitz 2011.

What these accounts have in common, is that the interrogative word contributes a variable to the representation. The existential force comes from the environment, specifically the embedding verb. That is these authors take these as embedded questions of sorts.

(The accounts differ on the source of the modality, but that is not relevant to us)

Clearly, these sentences entail the existence of the item, and so are not amenable to Lin's account, nor possibly, any account under which these words are NPIs.

Such modal constructions also occur in languages that have no other quexisentials, like Modern Greek:

60. Echo   ti   na fao
    have-1sg what INFL eat
  lit: I have what to eat
    'I have something that I can eat'

So it is unclear whether these modal constructions should be taken to indicate quexistentials at play, or rather question embedding of a certain sort.

Whichever way it is, though, here is a summary of the data so far:

	In the VP	Polarity-like environments	Under Existential verb
English	-	-	-
Greek	-	-	+
Dutch *wat*	+	-	+
Russian	-	+	+
Mandarin	-	+	-

When we started out, we had said that in general, what we see in languages with quexistentials is that there are syntactic restrictions on where the Ex is licensed.

There is actually a language that appears to license the Ex-reading without any restrictions other than Focus (as we said, we know no counterexample to this generalization)

This is the Algonquian language Passamaquody as described in grammars and the fieldwork of Ben Bruening. All the Passamaquody data are from Bruening 2007 and references cited there.

61   a. Kesq yaq   pemacqim-a-htit otuhk-ol, on   *keq*   (')-nutom-oni-ya.
            while Quot drag-Dir-3PConj deer-Obv then what 3-hear-N-3P
            'While they were dragging the deer they heard *something*.' (Newell 1974:5)

       b. On yaka   wesuwiy-apasi-htit,   wot   yaq *wen* pemi
            then then.Fut going.back-walk.away-3PConj this.An Quot who IC.along
            sakhiya-t.
            come.into.view-3Conj
            'Then, on their way back, *something* [animate] came into sight.' (Newell 1979:25)

       c. Keq (')-nomihtu-ni-ya etoli-macetutomuwi-k kci ponapsku-k *tama*   al
            what 3-see-N-3P   IC.there-move-IIConj big rock-Loc   where Uncertain
            tekkapimok.
            as.far.as.one.can.see
            'They see something moving on a big rock [*somewhere*] near the horizon.' (Mitchell
            1976c:22)

Example (c) has the ‚Uncertain' particle, whose role is (to us) unknown, but the (a,b) examples seem
clear cases of environments that would fail in the other languages that we have seen. (a) Would be ok in
Dutch, of course

In case you are interested in how Passamaquody interrogative Wh-behaviour compares to that in other languages we have seen:

Passamaquody is like English, Dutch, Russian but not like Mandarin, in that Wh-movement is necessary. If it is not moved, the quexistential can only receive the Ex -interpretation:

62 a. *Wen-il*   itom nemiy-a-t?
      who-Obv say.3 IC.see-Dir-3Conj
      'Who did he say he saw?'
   b. Itom *wen-il*   nemiy-a-t?
      say.3 who-Obv IC.see-Dir-3Conj
      'Did he say he saw someone?' (*'Who did he say he saw?')

The same holds for embedded questions:

63 a. Ma = te   n-kosiciy-a-w   [$_{CP}$ *wen*$_1$ *t*$_1$ kisi-komutonatomuw-a-t
NEG = EMPH 1-know-DIR-NEG   who   PERF-steal.from-DIR-3CONJ
n-kci-coqolsu-m-ol].
1-big-frog-POSS-OBV
'I don't know who stole my big frog.'

b. N-kosiciy-a [$_{CP}$ nucitqonket ma = te   *wen-il*
1-know-DIR   policeman   NEG = EMPH someone-OBV
'-kisi-tqon-a-wiy-il].
3-PERF-arrest-DIR-NEG-OBV
'I know the police didn't arrest anyone.' (*'I know who the police didn't arrest.')

This Wh-movement is subject to islands:

64 a. *Adjunct island*
     *Wen kisi-wisukilwaha-yin ['sami   ma = te   k-ciksota-ku-wi-n]?
     who Perf-get.angry-2Conj because Neg = Emph 2-listen.to-Inv-Neg-1P
     'Who did you get mad because didn't listen to us (incl.)?'

  b. *Complex NP*
     *Wen kis-uwikh-ot   [muwin kisi-siktehpawl-a-t]?
     who Perf-photograph-2Conj bear   Perf-scare-Dir-3Conj
     'Who did you take a picture of the bear that scared?'

Moreover, Passamaquody has no multiple Wh-questions, unlike Dutch, Russian. Recall that in Dutch, a sentence like the following is ambiguous:

65. Wie heeft wat gegeten

     'Who ate what?'

     'Who ate something?'

Passamaquody:

66.
     Keq wen nemiht-aq?
     what who IC.see-3CONJ
     'What did someone see?' (*multiple Q)

(In Russian the Ex- reading is out because Wh-questions do not license it)

	In the VP	Under Existential verb	Polarity-like environments	Unrestricted apparently
English	-	-	-	-
Greek	-	+	-	-
Dutch *wat*	+	+	-	-
Russian	-	+	+	-
Mandarin	-	-	+	-
Passamaquoddy		-		+ (except for fronting (focus)

Ex reading of a quexistential

polarity Licensing

Mandarin
Russian

non-polarity licensing

inside VP
Dutch *wat*
German

under Exist Verb
Dutch *wat*
German
Russian
Greek

Nowhere: English (no Quex)
Everywhere: Passamaquody

Except here. But this may be not a fact about P Wh-indefinites but about P not having non-finite clauses

Could it be that each language has its own licensing and interpretive conditions of the Ex reading and there is nothing to be said about the crosslinguistic distribution?

What would differences between languages (and within Dutch) be a function of?

Different properties of the Wh-words and quexistentials in each language?

There is no known (to us) attempt to cover the crosslinguistic distribution of this phenomenon. The closest cases are the discussion in Cole and Harmon 1998 and Bruening 2007.

(The main aim of Bruening 2007 is to prove wrong a previously stated connection between quexistentials, Q-particles, and Wh-in-situ. His position is that no two of these properties correlate.)

Cole and Hermon 1998: English Wh-words have the operator part in their semantics. Mandarin Wh-words do not and so they are capturable by a Question operator or an existential operator.

So English wh must move and Chinese can't move. Moreover, the Chinese ones are not subject to islands, as they are bound by a Q operator and don't move (though movement of adjuncts is subject to ECP, Huang 1982)

Prediction: there will be no language that has the Ex-reading of quexistentiasl but has obligatory movement.

Bruening: wrong! Look at German, Dutch, Passamaquody.

Neither is it the case that all wh-in situ languages have quexistentials: Turkish (and others)

Bruening 2007 also discusses a suggestion by Cole (p.c.):

Languages with island insensitive Wh-in-situ have 'wh-indefinites' (for us: quexistentials on the Ex-reading)

This correlation would rely on the fact that some Wh-insitu might be resolved by covert movement and hence be subject to islands. These Wh-words would be quantificational, and so would not be able to produce quexistentials on the Ex-reading.

But Wh-situ that is not island sensitive, indicates Wh-words that are bound by a Q-operator. Which means they are not quantificational on their own, which means that they can produce quexistentials on the Ex-reading if the environment provides an existential quantifier.

Bruening: there are counterexamples. Hara Oromo (Cushitic, Ethopia), Kobon, Marathi.

And even though he does not mention Turkish in this context, this language is also a counterexample. Wh-in-situ is insensitive to islands but there is no Ex-reading.

So even though there are language-specific proposals, there is no proposal that can capture the crosslinguistic disitribution of quexistentials.

But the parameters one has to play with appear to include the following:

-Some languages have quexistentials, some not.

-The languages that have quexistentials do not have uniform licensing conditions on the Ex-reading, though they do fall roughly into two types of licensing: polarity licensing and non-polarity licensing.

-Is there a principled ranking among these environments

-Focus seems to be an anti-licensors of the Ex reading crosslinguistically.

Since quexistentials are indefinites, the question of scope arises for the Ex interpretation.

This is especially critical since indefinites in general scope in unexpected ways, which has taken center stage in the debate of where the existential force comes from (QR, unselective binding, choice functions, Hamblin indefinites).

So in order to see what we need to explain, let's look at the scopal properties of the Ex interpretation of the quexistentials we have looked at.

Dutch:

Postma's closure at VP mechanism predicts that *wat* will be interpreted in the VP.

We already saw that one argument is syntactic placement. Moreover, he argues for (lack of) specificity interpretation:

6a. Jan heeft **snel   iets** opgeschreven

    Jan has **quickly something** written

  b. Jan heeft **snel wat** opgeschreven

     Jan has **quickly what** written =Jan has quickly something written

  c. Jan heeft **iets snel** opgeschreven

            something quickly

  d. *Jan heeft **wat snel** opgeschreven

            what quickly

The following facts, showing that *wat* does not participate in inverse scope are compatible with this conclusion:

There are ten students and they each read something. 6 of them read *War and Peace*, the other 4 read *Anna Karenina*. In this context, both (a,b) are false:

67 a. Het is niet zo dat elke student wat gelezen heeft

It is not the case that every student read *wat*

b. Precies 4 studenten hebben wat gelezen

Exactly 4 students   read   *wat*

One might say that this is an argument in favor of Postma's account and not merely compatible with it but unfortunately this is not so, because *iets*, which is supposed to be quantificational on its own according to Postma, behaves exactly the same way. Both sentences are false in the said context as well:

    68a. Het is niet zo dat elke student iets gelezen heeft

        It is not the case that every student read *iets*

      b. Precies 4 studenten hebben iets gelezen

        Exactly 4 students   read   *iets*

So it could merely be that Dutch does not permit inverse scope in general, without that providing any evidence for or against any position of where that existential force comes from. Though *een bepaald boek* (a certain book) forces inverse scope here.

Intermediate scope is also unavailable for *wat*. Only the narrowest scope is available. That is, no most> *wat*> every

69. De meeste taalkundigen hebben gekeken naar iedere analyse die wat oplost.

Most linguists have looked at every analysis that solves *wat*

Again this could be seen as a confirmation of low closure of *wat*, as in Postma's account, but again we find that the same holds for *iets*, which is not locally closed:

70. De meeste taalkundigen hebben gekeken naar iedere analyse die iets oplost.

Most linguists have looked at every analysis that solves *iets*

(and again, *een bepaald probleem* can have widest and intermediate scope)

So it seems like the scopal facts of Dutch are not that revealing in that we do not find any scopal differences between *wat* and *iets*, other than the original Postma observation about placement and non-specific interpretation.

But whatever we say about the comparison between *iets* and *wat,* the absence of wide or intermediate scope should count as an argument that *wat* is not captured by mechanisms that have been proposed for wide scope of indefinites, like QR, unselective binding, choice functions or Hamblin alternatives.

The existential licensor construction:

Each student out of 10 has something they can read if they want. 6 students have a copy of W&P with them, 4 students have a copy of AK. The following are false in Dutch, Greek and Russian

71   a. Het is niet zo dat elke student wat te lezen heeft

It is not the case that each student has what to read

b. Precies 4 studenten hebben wat te lezen

Exactly 4 students have what to read

This means that the existential does not scope above the existential verb which is supposed to provide the existential force.

Next we come to languages where the quexistential exhibit a polarity-type behavior, like Russian (other than below existential verbs, where it is narrowest scope) and Mandarin. Let's start with the latter.

In Mandarin, for Lin 2004, scope is obtained by choice functions. (He does not consider or reject the possibility of Hamblin alternatives, as Yanovich did for Russian)

The quexistential must scope under negation, as that is the licensor:

74.

Wo mei mai shenme (dongxi)'

I   not buy what   thing

'I didn't buy anything.'

But when an additional licensor is introduced in the sentence, the quexistential can scope over negation, as long as it scopes under that other licensor

75.   Ta haoxiang mei/bu chi shenme (dongxi) de-yangzi[8]

   he seem   not   eat what   thing   seem

   a.   'It seems that he did/does not eat anything.'

   b.   'It seems that there is something such that he did/does not eat

And here is another such case: A quexistential can scope out of a conditional if there is an additional licensor higher up. (the fact that scope can get out of the conditional partly supports the choice function approach for Lin)

75. Haoxiang [yaoshi shei bu qu de-hua, Zhangsan jiu bu qu]

seem   if   who not go if   Zhangsan then not go

de-yangzi

seem

(i) 'It seems that if anyone does not want to go, Zhangsan won't go.'

(ii) 'It seems that somebody is such that if he does not want to go, then Zhangsan won't go.'

The scope of the Ex reading of Passamaquody quexisentials is decribed as being the narrowest possible in Bruening 2007:

They must scope under negation (and this is not because negation is a licensor):

76a **Ma = te**   *wen* '-kisi-tomh-a-wiy-il   Piyel-ol.
Neg = Emph who 3-Perf-beat-Dir-Neg-Obv Piyel-Obv
'No one beat Piyel.' (*'There is someone who didn't beat Piyel.')

They cannot scope out of a conditional:

b.   Komac op   n-ulitahas *wen* peciya-t   etolimawiyayek.
very   would 1-be.happy who come-3Conj gathering
'I'll be happy if anyone comes to the party.' (nonspecific only)

Finally, this brings us to the scope of the Ex-reading in Russian quexistentials. We have already said where we disagree with Yanovich. Here are some of our own findings:

I. Quex in the scope of two licensors

- In Mandarin there is an ambiguity:

  String: L_1 L_2 Quex

  Scope: $L_1 \, \exists$ $L_2 \, \exists$ (ambiguous)

Not so in Russian.

77. Možet, esli kto ujd-et,   i   Maša tože ujd-et   [if +DaD]
    maybe if who leaves   and   Masha also leaves
    'Maybe if anyone leaves, Masha will also leave'   Možet> if > quex
NOT: 'Maybe there is a person x, s.t. if x leaves, Masha will also leave'
                                                    *Možet> ∃ > if

78. Verno li, čto esli kto ujd-et, i Maša tože ujd-et?
    true PTCL that if who leaves and Masha also leaves
    'Is it true that if anyone leaves, Masha will also leave'   Q>if> ∃
NOT: 'Is it true that there is a person x, s.t. if x leaves, Masha will aslo leave?'
                                                    * Q>∃ >if

So while the following holds for Mandarin:

String: L_1 L_2 Quex

Scope: L_1 $\exists$ L_2 $\exists$ (ambiguous)

Russian is different:

String: L_1 L_2 Quex

Scope: L_1 L_2 $\exists$ (unambiguous)

Unfortunately, this conclusion may be premature because for $\exists$ to scope over L_2, it has to get out of an island, which may be independently impossible in Russian. So what needs to be tested is the string L_1 L_2 *Quex* without an island in between.

II. Unexpected wide scope wrt Negation.

We saw earlier that the Ex of Russian quexistentials is not licensed in the scope of clausemate negation.

What we will see here is that Ex scopes over Negation in the presence of a higher licensor.

String: Licensor …. Neg … Quex

Scope: Licensor > ∃ > Neg

79. A chto, Ivan kogo ne videl?

And what Ivan who not saw?

'Is it the case that there is somebody who Ivan did not see? ∃ > Neg

 NOT 'Is it the case that Ivan saw nobody?   * Neg> ∃ >

When the licensor is a conditional antecedent:

80. Esli Ivan **ne priglasit kogo**, Masha razoslitsa   (also: **kogo ne priglasit**)
    If   Ivan   not invite who,   Masha will be angry

'If there is somebody that that Ivan does not invite, Masha will get angry'
(i.e. If Ivan doesn't invite everybody, Masha will get angry')   if> ∃>Neg

NOT: 'If Ivan invites nobody, Masha will get angry'   *if > Neg > ∃

III. Scope of Ex of quex wrt scopal elements other than negation

Can Ex of quex scopally interact with other elements in the environment?

81. String: L ... $\exists_{Object}$ ... QP$_{subject}$

Scope L > $\exists_{Object}$ > QP$_{subject}$

In a context where 3 people read AK and 8 people W&P, would the following receive a yes or no answer?

82. (Pro)chitali   li shto   rovno   tri   studenta?   YES
      Read   PRT what   exactly   three   students?

   'Is it true that there is something that exactly three students read'?

   Q > ∃ > exactly 3

If the scope had been *Q > exactly 3 > ∃*, the answer should have been 'NO'.
NOT: 'Is it true that exactly 3 people read something or other?'

83. (Pro)chitali li   shto   rovno odinacat'   chelovek?   NO

   Read   PRT what exactly   11   people?

    'Is it true that there is something that exactly 11 people read?'

If the scope had been *Q > exactly 11 > ∃*, the answer should have been 'YES'.

NOT: 'Is it true that at least 3 people read something or other?'

So the string

Q ... quex ... exactly 3 is interpreted as

Q > ∃ > exactly 3

Even when quex is the object and *exactly 3* is on the subject.

What about the following string:

84. Licensor ..QP...quex

85. A rovno tri studenta shto chitali?
 And exactly three students what read?

Which reading? (a) or (b)?
a. 'is it true that exactly 3 students read something or other?' Q >exactly 3 > ∃
     Expected answer: NO

b. 'Is it true that there is something that exactly 3 students read?' Q >∃ >exactly 3
     Expected answer: YES

Facts: for some, (85) is ungrammatical. For others, the judgment varies.
That is, for some, but not all, Ex of quex scopes under the licensor over other QPs.

When the licensor is a conditional antecedent, (81) still holds:

81. String: L … $\exists_{Object}$ … $QP_{subject}$
   Scope: L > $\exists_{Object}$ > $QP_{subject}$

Context: Three students invited John and five more students invited Masha

86. Esli kogo priglasjat rovno tri studenta , ja tebe dam $100.
    If   who   invite   exactly three students, I will pay you $100.

   In the context above I pay. i.e.: L > $\exists_{Object}$ > $QP_{subject}$

In the string:

87. Licensor ....QP .... Quex

Again the judgments vary.

Context: Three students invited John and five more students invited Masha

88. Esli rovno tri studenta kogo priglasjat, ja tebe dam $100.
    If exactly three students who invite, I will pay you $100.

For some I pay, for some I don't pay.

Scope of Ex of a quexistential

polarity Licensing   non-polarity licensing

      Mandarin   inside VP   under Exist Verb

      Russian   Dutch *wat*   Dutch *wat*

Mandarin: German   German

$L_1 \exists$ $L_2 \exists$ Quex   Greek

                         Passamaquody

Russian

$L_1 \; L_2 \exists$ Quex (possibly)   Narrowest scope

$L_1 \exists$ Neg Quex

103