Estonian indefinites in fragment answers: from something to nothing

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Estonian indefinite pronouns show a surprising behaviour: as fragment responses to wh-questions, they may be interpreted either as a positive existential, or as a negative (cf. Tamm (2015)). Moreover, these indefinites are systematically morphologically related their corresponding wh-words, each indefinite consisting of a wh-word plus the clitic *=gi*. The goal of a future version of this paper will be to describe an account of the semantics of this clitic and how it combines with wh-words, that can simultaneously predict the ambiguity of wh*=gi* indefinite fragment responses as well as the attested interpretations for other indefinite constructions containing *=gi*. In the present version of this paper, I will fall short of this goal, but I will describe the details of the problem, and the core requirements a potential solution must meet.

The piece of data at the centre of this puzzle is the ambiguity that exists between positive indefinite and negative interpretations of wh*=gi* indefinites when they are used in fragment responses without overt negation[1]:

(1) A: ***Mida*** *ta* *tee-b?*
what.PRT 3sg.NOM do-3SG
'What is she doing?'
B: *(Mitte)* ***mida=gi***.
not what.PRT=FOC
with NEG: 'Nothing'.
without NEG: 'Nothing.' / 'Something.'

(2) A: ***Keda*** *sa* *õue-s* *näg-i-d?*
who.PRT you.NOM garden-INE see-PST-2SG
'Who did you see in the garden?'
B: *(Mitte)* ***keda=gi***.
not who.PRT=FOC
with NEG: 'Nobody'.
without NEG: 'Nobody.' / 'Somebody.'

Similar items in other languages have received treatment in the literature, wherein the combination of a quantifier and a focus particle gives an indefinite. The case of Estonian indefinites like *mida=**gi*** differs from the Hindi *kuch **bhii*** (existential quantifier + focus particle / 'even', described in Lahiri (1998)) which cannot be used elliptically, and is perhaps more similar to Japanese *nani-**mo*** ('what' + focus particle / 'even', described in Watanabe (2004)), which *can* be used elliptically to mean 'nothing'. Unlike Japanese, however, Estonian allows these items as positive indefinites and NPIs in non-negative downward entailing environments, and the negative meaning of *midagi* cannot be explained by proposing that it is inherently negative and requires feature checking, as Watanabe does for *nani-mo*. So, while they may have some things in common with these other examples of indefinites formed in similar ways, they serve more functions than either of those two examples, and in any case merit and perhaps even require their own account.

I will consider two paths for a possible account. In one, the *=gi* focus clitic is an uninterpreted component of the indefinite. This will lead to a pragmatic account of the observed interpretations, which I will describe as I present the data. In the other, the *=gi* clitic is interpreted, unifying the description of wh*=gi* items with other indefinites involving *=gi*, but requiring some further assumptions in order to work to predict the observed ambiguity. What exactly these assumptions must be, I am not yet clear on, but I will speculate about this second alternative in section 3, after presenting the data.

The layout of this paper will be as follows. Section 1 will introduce the ingredients, describing the usage of these indefinites and the mechanisms of negation. Section 2 will introduce the puzzle regarding the interpretations of

[1]Note, for some of the speakers I consulted the constituent negation *mitte* is obligatory for the negative interpretation, and there is no ambiguity. I will be focusing on the judgments from speakers for whom the negative interpretation is available even without *mitte*.

various indefinites involving *=gi* in fragment responses, and describe an informal pragmatic mechanism to derive the empirically attested interpretations. Section 3 will summarize this account, and discuss the alternative one that I would like to develop. Section 4 will wrap up and mention some further areas that need investigation.

1 Introduction to wh=*gi* indefinites and negation in Estonian

Estonian indefinite pronouns are of the form [wh-word] + *=gi* (orthographic variant *=ki*).[2] It may be that these indefinites are morphologically derived, or they may be fossilized forms, with *=gi* no longer interpreted (and it is also possible that the *=gi* in indefinites is a homophonous unrelated morpheme (cf. Nevis (1984))). The question of how or whether these indefinites are derived from wh-items by the addition of this focus clitic is part of the puzzle, and it may indeed be crucial to an explanation of the patterns that exist in the use of these items. In any case, I mean to leave the question open for now, but will gloss these items as composed, with *=gi* as FOC.

Table 1: a sample of wh-words and wh=*gi* indefinites

wh-word	wh-word + *=gi*
mida	***midagi***
what.PRT	something/anything/nothing
milleks	***millekski***
what.TRNSL = why	for some/any/no reason
kes	***keegi***
who.NOM	someone/anyone/noöne
kuhu	***kuhugi***
where.ILL	somewhere/anywhere/nowhere
kuidas	***kuidagi***
how	somehow/anyhow/nohow
kuna / millal	***kunagi / millalgi***
when	sometime/ever/never
kumb	***kumbki***
which (of two)	one/either/neither (of two)

Wh=*gi* items are indefinite pronouns with existential meanings like 'something/somebody/somewhere/etc.', or in negative contexts 'anything/anybody/anywhere/etc.', with optional constituent negation reinforcing this negative interpretation. Note that there are two main negative particles in Estonian. The first is the clausal negator, an uninflected[3] pre-verbal auxiliary *ei* (which I will gloss as NEG), with which the verb agrees, taking the connegative form (gloss CNG). The second is the constituent negator *mitte* (which I will gloss as 'not'), which occurs optionally in the negative sentences below, and is uninterpreted in these constructions (it may be analyzed as a negative concord element).

For instance:

(3) *Ma näg-i-n* ***mida=gi.***
I see-PST-1SG what.PRT=FOC.
'I saw something'

(4) *Ma ei nä-i-nud (mitte)* ***mida=gi.***
I NEG see-PST-CNG not what.PRT=FOC.
'I didn't see anything'

(5) *Me läk-si-me* ***kuhu=gi.***
We go-PST-1PL where.ILL=FOC.
'We went somewhere.'

(6) *Me ei lä-i-nud (mitte)* ***kuhu=gi.***
we NEG go-PST-CNG not where.ILL=FOC.
'We didn't go anywhere.'

[2] Indefinite pronouns are morphologically related question words in many languages (cf. Haspelmath et al. (2005)).

[3] The modern standard Estonian *ei* comes from the 3rd person singular form of an auxiliary that showed inflection for person and number historically (and currently in some south Estonian varieties, as in Finnish).

(7) ***Kee=gi*** *seisa-b* *seal.*
who.NOM=FOC stand-3SG there.
'Someone is standing over there.'

(8) *(Mitte)* ***kee=gi*** *ei* *seisa* *seal.*
not who.NOM=FOC NEG stand.CNG there.
'Nobody stands over there.'

The indefinites also appear in downward entailing environments without negation, where they function as would be expected of negative polarity items, that is, as existential quantifiers (with no epistemic effect):

(9) *Kui te* ***mida=gi*** *tea-da* *saa-te, siis* *and-ke* *mu-lle tea-da.*
if you.PL what=FOC know-INF get-2PL then give-IMP.PL me-ALL know-INF
'If you find anything out, let me know.'

(10) *Kas sa* *tea-d* ***keda=gi****, ke-l* *ole-ks* ***mida=gi*** *pakku-da?*
Q you.SG know-2SG who=FOC who-ABE be-COND what=FOC offer-INF
'Do you know of anyone who could have something to offer?'

Note also that Estonian word order is relatively flexible, and there is a scope ambiguity related to the position of an indefinite pronoun with respect to clausal negation. According to Tamm (2015), at least with indefinites in subject position, if the indefinite precedes NEG, but there is intervening material, then it scopes outside of negation, as in

(11) ***Mida=gi*** *siin ei klapi.*
what.NOM=FOC here NEG match.CNG
'Something is wrong here.' (Tamm (2015), (30))

However, if the indefinite subject follows NEG, the scope is ambiguous, and if it *immediately* precedes NEG, then it may scope within negation.

(12) *Siin ei klapi* ***mida=gi****.*
here NEG match.cng what.NOM=FOC
'Something is wrong here.'/'Nothing is right here.' (ibid. (31))

(13) ***Mis=ki*** *p-ole* *võimatu,* *kuni p-ole* *tõesta-tud* *vastupidis-t.*
what=FOC NEG-be.CNG impossible until NEG-be.CNG proven-PTCP.PASS.PST opposite.PRT
'Nothing is impossible until the opposite has been proved.' (ibid. (32))

There is more to say about the details of these scope interpretations, which may be also effected by prosody (12 can be disambiguated with focus prosody) and other parameters. These patterns would benefit from a detailed treatment, but this short description should suffice for current purposes, particularly the ability of an indefinite immediately preceding negation to scope below that negation.

2 The puzzle

2.1 Responses not in the answer set

Under the assumptions of a Hamblin-Karttunen style analysis, a wh-question denotes a set of possible answers with an existence presupposition introduced by the wh-item, which contains an existential quantifier, as in:

(14) $[\![\textbf{who}]\!]^w = \lambda f_{et}.\exists x[^*\text{person}(x) \text{ in } w \wedge f(x) = 1]$

(15) $[\![\textbf{who did Mari see?}]\!]^w = \lambda p.\exists x[\ (^*\text{person}(x) \text{ in } w) \wedge (p = \lambda w'.\ \text{Mari saw } x \text{ in } w')\ ]$
Answer set: {that Mari saw Anu, that Mari saw Bergit, that Mari saw Anu and Bergit . . . }

The act of answering consists of providing an element of the answer set.

Note that there is a difference between *answering* a question by providing an element of the answer set, and *responding* to it by providing some proposition that is not strictly a member of the answer set. Following Jacobson

(2016), I will call only an utterance which picks out a member of the answer set an *answer*. For instance, 'nobody', is an utterance that negates the existence presupposition of 15, and is coöperative *response* to that question without being an *answer* (it isn't in the set).

In general, quantifiers are available as fragment responses to wh-questions. That is, in response to the question in 15, along with members of the answer set, the following quantifiers are among the expected type of fragment responses:

The universal quantifier 'everybody' has a denotation which may indeed be in the answer set, and so, may certainly be expected as a response. The negative existential 'nobody' ($= \neg\exists x$. that Mari saw x) cannot be in the answer set. However, when used as a response, it contributes by negating the question's presupposition. Complex quantifiers like 'somebody wearing a hat', 'two Canadians', 'nobody except Bergit' are likewise not in the answer set but are possible informative responses to the question. The bare existential quantifier 'somebody' likewise cannot be in the answer set. In fact it denotes itself just the existential presupposition of the question, which can give rise to an epistemic indefiniteness effect (pragmatically, it is not a contributive response, and by a standard Gricean analysis, its use in response to the question implies that the responder does not know or for some other reason does not wish to give a more informative answer).

The current puzzle involves such responses whose meanings are not proper answers (they don't pick out an element of the answer set), but are still in the realm of expected responses to wh-questions.

2.2 Wh=*gi* fragments — ambiguity bwtween positive and negative interpretations

In a declarative sentence with an indefinite, negative interpretation requires predicate negation (negative particle *ei*, before the verb, in which case verb must take the connegative form), and optionally also constituent negation (*mitte*, before the indefinite). Compare negative 17 to the positive 16. Note also that the negative particle before the verb is required though the constituent negation is optional.

(16) *Ta näg-i-b **keda=gi**.*
3SG see-PST-3SG who.PRT=FOC
's/he saw somebody'

(17) *Ta ei nä-i-nud (mitte) **keda=gi** .*
3SG NEG see-PST-CNG not who.PRT=FOC
's/he didn't see anybody'

(18) * *Ta nä-i-nud (mitte) **keda=gi** .*
3SG see-PST-CNG not who.PRT=FOC

(19) * *Ta näg-i-b mitte **keda=gi** .*
3SG see-PST.3SG not who.PRT=FOC

Under an ellipsis analysis, fragment responses (such as the responses in 1, 2, or answers consisting of a element of the answer set) are really full-sentence responses which have undergone ellipsis. That is, two different full-sentence responses to a wh-question are below, and when the the content in grey is elided we get the observed fragment response. An ellipsis account like this describes the observed ambiguity between the negative interpretation and the positive indefinite interpretation.

(20) A: ***Keda** sa näg-i-d?*
who.PRT you.NOM see-PST-2SG
'Who did you see?'

B: ***Keda=gi**.*

i. positive indefinite interpretation
*Ma näg-i-n **keda=gi**.*
I see-PST-1SG who.PRT=FOC
'I saw somebody' [epistemic indef. quality]

ii. negative interpretation
*Ma ei nä-i-nud (mitte) **keda=gi** .*
I NEG see-PST-CNG not who.PRT=FOC
'I didn't see anybody'

In most accounts of ellipsis, there is some type of syntactic/semantic identity condition that should hold between the elided material and an antecedent. In 20, the antecedent is roughly *sa nägid*, and it is clear that both

semantically and syntactically the positive interpretation is a better match to the antecedent than the negative interpretation.

So, why is the negative interpretation available at all? My hypothesis is that this is precisely because the positive interpretation is uninformative. Note that the epistemic quality of the positive indefinite interpretation truly must be pragmatic, and not a part of the semantics of the wh=*gi* item itself. In a simple declarative sentence, the wh=*gi* indefinite contributes only a simple existential indefiniteness:

(21) *Ma näe-n* ***keda=gi*** *seal. (... konkreetsemalt öelde-s, näe-n Karla-t.)*
I see-1SG who.PRT=FOC there concretely speak.INF-INE see-1SG K-PART
'I see someone there. (...in particular, I see Karl.)'

The two-option ellipsis analysis of a wh=*gi* fragment seems reasonable, given the fact that the constituent negation is optional in a full-sentence negative response. Under this analysis, the empirical facts are correctly predicted: a fragment response consisting (at least phonologically) only of the indefinite *keda=gi* is ambiguous between the positive and negative interpretations. Inclusion of an initial *mitte* will disambiguate, ruling out the positive interpretation. So, wh=*gi* items have the semantics of positive existential quantifiers, and the observed negative interpretation comes from negation that is present in the elided material. The important piece of the hypothesis is that the effect of negation is equivalent regardless of whether it is pronounced or elided (with the observed constituent negation being the result of an optional negative-concord agreement relation, not providing negation itself).

2.3 'Even one' NPIs as fragments — only a negative interpretation

Given the availability of the negative interpretation for wh=*gi* fragment responses, this kind of elided negation interpretation should be available in other similar types of fragment-response constructions. For instance, it should license NPI indefinites such as *üks=ki*, 'any' (lit. 'one'=*gi*, 'even one'/'a single'), since, examining such NPI indefinites, we find that in a full-sentence, the constituent negation is optional, just as with the wh=*gi* indefinites:

(22) *(Mitte)* ***üks=ki*** *inimene ei lähe.*
NEG one.NOM=FOC person.NOM NEG go.CNG
'Not a single person is going'.

So, the same should be true for the fragment response to a wh-question. This does indeed seem to be the case: these kind of NPI phrases can be used as fragment responses with or without overt constituent negation *mitte* (though answering a wh-question with one of these NPI phrases is a little odd, dropping the negation does not make them much odder[4]):

(23) A: ***Kes*** *lähe-b homme teatri-sse?*
who.NOM go.3SG tomorrow theatre-ILL
'Who is going to the theatre tomorrow?'
B: *(Mitte)* ***üks=ki*** *inimene.*
NEG one.NOM=FOC person.NOM
'Not a single person'.

So, elided predicate negation can license NPI indefinites just as it can license the negative interpretation of wh=*gi* indefinites. In all the following, the predicate negation *mitte* is optional (which makes sense, if it is the elided clausal negation that licenses the NPIs).

(24) *A: Mis toimu-s eile?* *B: (mitte)* ***üks=ki*** *asi.*
what.NOM happen-PST.3SG yesterday not one.NOM=FOC thing
A: 'What happened yesterday?' B: 'Not a single thing'

[4]These "(not) even one" fragment utterances would be more natural as responses to a how-many question

(25) *A: Kellele sa helista-si-d?* *B: (mitte)* ***ühe-le=gi/ühe=gi-le*** *inimese-le.*
who.ALL you call-PST-2SG not one-ALL=FOC/=FOC-ALL thing
A: 'Who did you call?' B: 'Not a single person'

(26) *A: Milleks ta seda kasuta-b?* *B: (mitte)* ***ühe-l=gi*** *põhjuse-l.*
what.TRNSL 3SG that.PRT use-3SG not one-ABE=FOC reason-ABE
A: 'Why is she using that?' B: 'Not for any reason'

In these examples, unlike the wh=*gi* indefinites, it is *only* the negative interpretation that is available. This is predicted given that these are NPIs, which are only interpretable in downward entailing environments, such as under negation.

A similar, opposite situation is expected, and observed, for items like *mingi*, free-choice 'some/any', which is not grammatical in a sentence with predicate negation, and likewise cannot be interpreted negatively in a fragment response (and of course, nor can the fragment response carry constituent negation):

(27) *Ma näg-i-n* ***mingi-t inimest.***
I see.PST-1SG some-PRT person.NOM
'I saw some person (or other)'.

(28) * *Ma ei nä-i-nud* ***mingi-t inimest.***
I NEG see-PST-CNG some-PRT person.NOM

(29) A: ***Keda*** *sa näg-i-d?*
who.PRT you.NOM see-PST-2SG
'Who did you see?'
B: ***Mingi-t inimest.***
some-PRT person.PRT
'Some person (or other)'.

2.4 Modified indefinites: wh=*gi* + Adj — only the positive interpretation

So far we have seen examples suggesting that the negative interpretation is always available if negation is possible in the full-sentence version of the response. However, this is not always the case. If, unlike the examples 1, 2, 20, 23–26, the fragment response has a positive interpretation that *is* contributive (informally, if the full-sentence positive interpretation of the fragment contributes some information about the makeup of the answer set beyond that which is already contributed by the presupposition of the question), then, without *mitte*, only the positive interpretation is available, and *mitte* is obligatory for the negative interpretation. For instance, the following type of fragment response consists intuitively of a quantifier with a restrictor, limiting the answers in the answer set to just those individuals who are interesting:

(30) A: ***Keda*** *sa näg-i-d?*
who.PRT you.NOM see-PST-2SG
'Who did you see?'

B: ***Keda=gi*** *huvitava-t.*
one.NOM=FOC interesting-PRT
'Somebody interesting.'

(or) *Mitte* ***keda=gi*** *huvitava-t.*
not one.NOM=FOC interesting-PRT
'Nobody interesting.'

i. positive indefinite interpretation

Ma näg-i-n ***keda=gi*** *huvitava-t.*
I see-PST-1SG who.PRT=FOC interesting-PRT
'I saw somebody interesting'

ii. negative interpretation [available only with *mitte*]

Ei nä-i-nud (mitte) ***keda=gi*** *huvitava-t.*
NEG see-PST-CNG not who.PRT=FOC interesting-PRT
'I didn't see anybody interesting'

With overt constituent negation, the fragment response gives the negative interpretation, unsurprisingly. How do we describe the difference between this case, and the unmodified version in 20? So far we have the following: a fragment response is derived via ellipsis from a full-sentence response, and, in a case like where the fragment contains an NPI (23), the full sentence response before ellipsis cannot have been positive. Contrariwise, in a case like 29, the full-sentence response cannot have been negative, since the fragment is a PPI. However, in the case of a wh=*gi*, which is grammatical in either positive or negative environments, there is ambiguity. This should be true whether or not there is a modifier like *huvitavat* 'interesting', and the ambiguity should exist in 30. But, it does not. Without negation, only the positive interpretation is available.

With the pragmatic approach taken so far, we can explain this in the following way: both interpretations are available syntactically (ellipsis of both the positive and the negative version is licit), however if we assume the positive interpretation is preferred (by a syntactic or semantic identity condition, since there is no negation in the antecedent, the positive interpretation is a better candidate for the ellipsis). Recall that in 20, the positive answer was uninformative, though. So, in that case the negative answer (which happens to be much more informative) becomes available.

In 30, however, the modifier is strengthening the utterance (making it more informative than the bare indefinite would be). So, the positive interpretation is no longer degraded, and there is no reason to attempt the sloppier ellipsis involved in getting the negative interpretation.

2.5 Summary

The interpretations of indefinites presented so far (when used as fragment responses, without *mitte*) is the following: bare NPI DPs formed with *üks=ki* can only have the negative interpretation (§2.3); bare wh=*gi* indefinites are ambiguous between positive and negative interpretations (§2.2); and wh=*gi* items with a modifier can only have the positive interpretation (§2.4).

Table 2: =*gi* indefinites

indefinite nominal	available interpretations
***üks=ki* (+ [N])**	neg
[wh]=*gi*	pos / neg
[wh]=*gi* + [Adj]	pos

3 Analyses

3.1 Pragmatic account: wh=*gi* not morphologically analyzed

So far I have provided an informal pragmatic account for why the observed interpretations are available, based on the assumption that it is always syntactically possible to have elided clausal negation, but that this negated form is a worse fit to the antecedent (which doesn't contain negation), so it is heavily dispreferred to the positive version, all else being equal.[5] To summarize, the ambiguity of wh=*gi* short-responses comes simply from the com-

[5] if the antecedent *does* contain negation, the positive interpretation is unavailable.

(1) *A:* ***Kes*** *ei tul-nud?* *B:* ***? Kee=gi.***
who.NOM NEG come-PST.CNG who.NOM=FOC
A:'Who didn't come?' B:'Nobody' (positive interpretation 'Somebody' not available)

The answer itself is rather degraded as a response, and is perhaps ambiguous between a reading as 'Somebody didn't come', and 'Nobody came', but my informant was not able to give confident judgments on this example, saying it was too unnatural to make sense of, while maintaining that it definitely couldn't have the positive interpretation 'Somebody came'.

petition between this effect and the fact that the positive interpretation is uninformative, thus neither the positive nor the negative interpretation is preferred, and this leads to both being available (§2.2). This competition is nullified in constructions wherein the positive interpretation is made informative with the addition of an adjective (§2.4). Lastly, for an NPI, which is simply ungrammatical in an upward entailing environment, only the negative interpretation is available (§2.3).

3.2 An alternative: an analysis based on *=gi* = 'even'

During the course of presenting the data in the previous section, I did not make any overt assumption about the semantics of *=gi*, which is the common element present in the wh=*gi* items, and the NPI *üks=ki*. Norris (2014) argues that "the *=gi* of indefinite pronouns contributes *indefiniteness*" (after Nevis (1984)), and is not related to the discourse particle *=gi* which plays a focus marking role elsewhere. However, I think it is possible to connect the function of the clitic in indefinites to its other functions in the language. In general, *=gi* can productively attach to many types of hosts (including nouns, verbs, adjectives, adverbs, and postpositions), and beyond being a focus marker, and contributing something relating to information structure (Norris (2018)), its semantics have eluded a unified description. Keevallik (2011) relates that the functions of *=gi* "have been said to range from focusing to simple connecting, to marking of concessivity and surprise" but notes that its use with "nouns generally implies addition, 'too, also"'[6], which is related to its focus/emphasis-adding function. So, in general when attached to nominals (as in 31, 32), *=gi* has the semantics of an emphatic focus marker with meaning 'too' or also 'even' (similar, it seems, to Hindi *bhii* or Japanese *-mo* which, as mentioned, also can make indefinites (NPIs) from quantifiers/question words in a similar way).

(31) ***Lapsed=ki*** *oli-d hommiku-ni jaanipeo-l.*
children=FOC were morning-TERM midsummers party.ABE
'The children too were at the midsummer's party until morning' (Metslang (2002) p.58)

(32) *Ööpimedus viska-b varju kõige-le, mis on. Iseoma* ***nägu=gi*** *tundu-b paljas ja kardetav...*
night-dark throw.3SG shadow.PRT all.ALL what is self-own face=FOC seem.3SG bare and frightening
'Night's dark throws a shadow on all there is. *Even one's own face* seems bare and frightening...'(ibid. p.64)

3.2.1 A semantic explanation for *üks=ki*

Given the 'even' meaning that *=gi* seems to have, it follows that this particle can combine with the numeral *üks* 'one' in a way that gives the NPI meaning of *üks=ki*, and predicts the observation that as a fragment, only the negative interpretation of an *üks=ki* phrase is available (§2.3). The reasoning is as follows (similar to what is put forward in Lahiri (1998) for the Hindi equivalent *ek/koii bhii*), where the meaning of 'even' contributes an implicature that the item it associates with is least likely of all alternatives (and that some alternative exists and is true) and the meaning of the numeral 'one' is true of any set of cardinality ≥ 1.[7]

To state this formally, as Lahiri does: for an assertion a, and C a set of alternatives to a, the implicatures generated by *=gi*, as a focus marker with the meaning 'even', are

(33) $\exists p[p \in C \wedge \check{}p \wedge p \neq a]$ and $\forall p[[p \in C \wedge p \neq \hat{}a] \rightarrow \text{likelihood}(p) > \text{likelihood}(\hat{}a)]$

Consider an ungrammatical example with the NPI in upward entailing environment such as

(34) * ***üks=ki*** *inimene lähe-b.*
one.NOM=FOC person.NOM go.3SG
'even one person came'

[6]The paper is primarily focused on its use with verbs (the most common use, in spoken usage) claiming that it has the function of invalidating a prior assumption. I would note that this usage is perhaps also related to the one of current interest, it makes salient something new in contrast to a previously known, less surprising, alternative.

[7]Other minimizer NPIs such as *mitte raasugi* 'not a crumb', *mitte tilkagi* 'not a drop', *mitte pennigi* 'not a penny', *mitte sõnagi* 'not a word' should work similarly, though I haven't tested these in short answers. It might be interesting to see whether they are acceptable without overt negation.

(the hypothetical pre-ellipsis version of 23B's unavailable positive interpretation). The element to which *=gi* 'even' is attached is the numeral *üks* 'one', and this brings to salience a set of alternatives (in this case other numerals, {two, three...}), inducing a set of alternative propositions $C = \{$'that two people are going', 'that three people are going', ...$\}$. By 33, each element of C (that is 'that x people are going' for any $x \neq 1$) is strictly more likely than the proposition 'that one person is going'. However, these alternative propositions are all related by entailment, and, crucially, every element in the set entails 'that one person is going' (it is the weakest possible predicate). So, for any numeral x, the likelihood of 'that x people are going' $\leq$ likelihood of 'that one person is going', contradicting the likelihood implicature of 33.

Thus there is a clash between the implicature induced by 'even' and the meaning of the numeral 'one'. It is easy to see that this clash goes away under negation (because negation is entailment inverting, so 'that one person is not going' becomes *stronger* than all alternatives). This explains why *üks=ki* 'even one' is only licensed under negation (and in other downward entailing environments), and thus predicts the observed fact that a fragment answer with *üks=ki* (as in 23) can only have the negative interpretation.

3.2.2 No such easy explanation for wh=*gi*: instead, some speculation

Now, it seems like it should be the same for the wh=*gi* items. The element with which *=gi* associates is a wh-word, which has an existential quantifier in its denotation. All else being equal, if the this existential component is what *=gi* associates with, one might expect the behaviour of 'what'=*gi* to be not very different from the behaviour of 'one'=*gi*: the existentially quantified predicate will be true if there is one or more element which satisfies it (very similar to the numeral 'one'), and will then be the weakest of the alternatives, and so will clash with the least-probable-alternative requirement introduced by *=gi*'s meaning 'even'. So, as in the previous case, the positive interpretation should be impossible, and this is contrary to fact: the positive interpretation *is* available, alongside the negative (§2.2).

In order for an analysis to work under the assumption that wh=*gi* is morphologically compositional, with interpreted *=gi* playing the same role it does in minimizer NPIs like *üks=ki*, the clash between the entailment scale among the alternatives on one hand and the least-probable-alternative requirement on the other must be nullified in some way.

One potential way to achieve this would be to find an analysis of how 'even' combines with a wh-word such that the set of alternatives is not related by entailment (note, a set of alternatives all of which are *weaker* would flip the problem of matching only half the facts, and fail to predict the negative interpretation instead of the positive). There may be some hope for such an analysis, since, unlike a numeral, where it is clear that the alternatives are other numerals, it is not clear what the alternatives are to a question word like 'what' or 'who'. For instance, perhaps the alternatives that 'even' associates with consist of the alternative elements of a conceptual cover (following Aloni et al. (2015)[8], who make use of a domain shift between conceptual covers[9] as part of their analysis of epistemic indefinites). Without going into details in this speculative section, I will just comment that by the definition of a conceptual cover alternative elements of the cover would not be related by entailment. With *=gi* 'even' associating with a conceptual cover, the implicatures induced by 33 might be hard to detect, but this is just speculation, and perhaps a direction for future investigation.

As it stands, I do not see a way to make the application of *=gi* to wh-items give a semantics consistent with the observations, parallel to the way it combines with an element like a numeral to make a minimizer NPI. Thus, it is possible that the *=gi* of wh=*gi* indefinites is simply unrelated to the emphatic focus-particle *=gi* 'even' (either it is a morphologically unanalyzable element (at least synchronically), or it is a seperate morpheme, as argued by Nevis (1984); Norris (2014, 2018)). But, I would like to investigate this further before abandoning the search for unified semantics.

[8] Thanks to Luis Alonso-Ovalle, for suggesting this.

[9] Their definition: Given a set of possible worlds W and a domain of individuals D, a conceptual cover $C_{W,D}$ is a set of individual concepts (functions $W \to D$) such that: $\forall w \in W : \forall d \in D : \exists! c \in C_{W,D} : c(w) = d$.

4 Conclusion

The ambiguity of wh=*gi* indefinites as fragments is a pattern asking for an explanation, particularly since it is, on the surface, surprising, and even seems to be contrary to some crosslinguistic tendencies.[10] However, an ellipsis account of fragment-responses is well suited to predicting the observed ambiguity. Given the fact that there is no seperate negative indefinite series in Estonian, or perhaps more generally and that indefinite DPs are not obligatorily marked in negative contexts (the fact that constituent negation or negative concord *mitte* is optional in the context of a negative predicate), a negative indefinite assertion having undergone ellipsis is phonologically identical to a positive indefinite assertion having undergone the same type of ellipsis. The epistemic indefiniteness effect that is observed with the positive interpretation can be explained by pragmatic means: the semantics of the question itself introduces an existential presupposition, and the indefinite response, supplying no further information, gets an epistemic indefinite interpretation. Together, these effects predict the observed ambiguity.

The observed fact that the ambiguity goes away when the fragment response is augmented with a modifier can be explained likewise via the same type of pragmatic argument: the addition of the modifying adjective removes the epistemic effect, by making the positive interpretation better in terms of informativity, as well as it's being better as a match for ellipsis, so it is the only interpretation available.

The ellipsis account also works to predict the acceptability of NPI indefinites (such as *ükski*) without overt negation, and the lack of such an ambiguity in that case given the unavilability such NPIs in the upward-entailing environment of a positive predicate.

However, that account alone does not make use of the element that all these indefinites have in common: the morpheme *=gi*. An attempt to use the semantics of 'too/even' that are integral to the function of the clitic *=gi* in productive use (at least when used with nominals) in order to derive an indefinite does in fact work well for a minimizer NPI like *üks=ki* 'one', but does not seem to work to get the empirically attested interpretation of wh=*gi* indefinites. So perhaps the surface similarity is just that, and *midagi* does not equal *mida* + *=gi* 'only/too'. This may turn out to be the case. However, at this point further investigation is still warranted. An exploration of the mechanisms by which *=gi* might combine with wh-words would be useful, as would an investigation into the full complexity and systematicity of the seemingly myriad meanings of *=gi* when attached to different categories of words.

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[10] In particular, in direct opposition to the "absolute universal" stated in Haspelmath (2000) (423) "If an indefinite series that is used in the direct-negation function is also used in free choice function or a specific function, it may not be used elliptically with a negative interpretation." Estonian wh=*gi* indefinites may be used in direct negation and are able to be used elliptically with a negative interpretation.

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