Definiteness in English and Estonian: same pragmatic principles, different syntax

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Draft 08 07 2021

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English has a definite article. Estonian does not. Estonian does have words which can be used to mark definiteness (such as *see* ("this")) ((Pajusalu, 1997), (Pajusalu, 2000)). And so one might be tempted to think that whatever work is done by the English "the" is done in Estonian by the demonstrative *see*. But *see* clearly has a different meaning from the English *the*. This can be seen from problems that arise with Sutrop's (1995) translation of Bertrand Russell's "On Denoting"—an entire article about the meaning of the word *the*—wherein the word *the* was replaced with the Estonian demonstrative (see also (Cohnitz, 2006) for the same strategy). Russell discusses the following example:

(1) The father of Charles II was executed.

Russell rightly claims of (1) that it implies that there is one and only one father of Charles II. Sutrop translates (1) as:

(2) See Charles II isa hukati.
    This Charles II's father was executed.
    This father of Charles II was executed.

(2) implies the very opposite of what Russell claims of (1): that there is *more than* one father of Charles II. *See* does not have the meaning of the English *the*.

Notice though that English articles are very often informationally redundant: the surrounding context already provides you with the information the article provides you with. We can see this from the fact that it's possible to use articles in English infelicitously: they cannot just be used wherever (Hawkins, 1991). Consider, for instance:[1]

(3) I saw a boy and a girl. Jaan loved #a/the girl.

In the second occurrence of *girl*, the indefinite article is infelicitous and the definite article is not. This is perhaps why an English speaker would know that a definite article should go here if no article were present. The same is so of many other uses of the English articles (e.g. *#a smallest restaurant in town was shut down*, *#a saddle on my bike was blue*). The surrounding context already gives you whatever information would otherwise be provided by the article.

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[1] I use "#" to indicate that a given expression or construction is infelicitous.

Not only are English articles to a great extent informationally redundant, but Estonian singular øNPs can, in the right context, be unambiguously definite or alternatively unambiguously indefinite—without any need to mark the fact.[2] For instance:

(4) Ma   nägin poissi ja   tüdrukut.   Tüdruk sisenes   majja.
     I   saw   boy   and   girl.   Girl   entered   house.
     I saw a/the boy and a/the girl. The girl entered the house.

In (4), the second use of *tüdruk* is unambiguously anaphoric—it refers back to the girl mentioned in the first sentence.

This is so regardless of whether the second use of the noun is the subject or the direct object of the verb. Consider:

(5) Ma   nägin poissi ja   tüdrukut.   Jaan   armastas   tüdrukut.

     I   saw   boy   and   girl.   Jaan   loved   girl.

     I saw a/the boy and a/the girl. Jaan loved the girl.

In (5), the øNP *tüdrukut* in the second sentence is understood to refer back to the girl mentioned in the first sentence.[3]

øNPs can also be unambiguously indefinite. Consider:

     What happened? (asked whilst looking a crumpled car, at a scrap yard)
(6) Mees sõitis   vastu   puud.
     Man drove   against   tree.
     A man drove into a tree.

     Jaan and Mari are waiting in the queue of a bookshop and they have very different tastes in books.
(7) Jaan ostis   raamatu   ja   siis   Mari   ostis   raaamatu.
     Jaan bought   book   and   then   Mari   bought   book.
     Jaan bought a book and then Mari bought a book.

In (6) it's clear that *Mees* and *puu* introduce new objects into the context: they are not anaphoric. Similarly the book Mari bought is not the book that Jaan bought: the second *raamatu* introduces a new object despite the presence of a unique object in the context that satsfies this NP.

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[2] Throughout I'm only discussing *singular* NPs. I don't address the complexities of plurals.

[3] I use "øNP" to label the category of a noun phrase without a determiner. I don't mean to take a stand here in syntactic theory. So if the reader think it more apt to understand this category as øDP, then go ahead.

So Estonian øNPs are sometimes unambigiously anaphoric—referring back to some object already introduced into the context. And othertimes they are unambiguously indefinite: introducing new objects into the context. Estonian øNPs are not simply ambiguous in all their uses between a definite and an indefinite meaning (though this can happen too: see the first occurences of *poiss* ("boy") and *tüdruk* ("girl") in (4) and (5)).

The current paper pursues the hypothesis that the pragmatic principles which govern the felicity of English articles are the very same pragmatic principles that govern the interpretation of bare singular NPs in Estonian. It applies the theory of Grønn and Sæbø (2012) of the pragmatic principles governing a wide range of uses of the words *a*, *the*, and *another* in English, to Estonian.[4] The thought is that Estonian is subject to the same pragmatic principles as English. It's just that the syntaxes of English and Estonian differ. The application of the same principles to different syntaxes means they pressure speakers to choose between different sets of options. And so the effects of these same pragmatic principles differ from each other for the two languages whilst still nonetheless exhibiting clear parallels with each other.

2 Grønn and Sæbø's theory

Grønn and Sæbø's theory can be divided into two parts: a set of hypotheses about the meanings of *a*, *the* and *another*; and assumptions about the pragmatic norms governing interpretation.

2.1 The meanings: *a*, *the* and *another*

Let's begin with the first part: the meanings. The key to understanding Grønn and Sæbø's theory is the distinction in the meanings they propose for *a*, *the* and *another* between what's *presupposed* and what's *asserted* by sentences that include these words. For instance: *Erik took his*

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[4] Other attempts to discern how definiteness is expressed in articleless languages include (Collins, 2016) (Tagalog), Dayal (2004) (Chinese, Hindi, Russian) and (Lim, forthcoming) (Burmese). But these analyses do not properly describe what takes place in Estonian because of key differences in the syntax of Estonian and these other languages. In particular, although Tagalog is an articleless language, definiteness is marked by verbal affixes (which doesn't happen in Estonian). Although Burmese is an articleless language, indefinites *require* the use of *one* (whereas this is optional in Estonian) and situational definites cannot be combined with a demonstrative (which is not true of Estonian). With respect to Dayal, she assumes that singular *ø*NPs (just like English plural *ø*NPs) generally cannot take wide scope (*John didn't read a book* can mean there was a book that John didn't read, but *John didn't read books* cannot mean there were some books that John didn't read). But this isn't true of Estonian singular *ø*NPs. Nonetheless, one would hope that if the same pragmatic principles explain article selection in English and *ø*NP interpretation in Estonian, that the same principles would manifest themselves in languages like Tagalog and Burmese. But I leave an investigation of that for another occasion. For exploration of the generalization that the same pragmatic principles govern different systems of determiners see (Schaden, 2020).

sister to the theatre presupposes that the context contains a sister of Erik. It asserts that Erik took this person to the theatre. *Estonia has a coast too* presupposes that the context already includes a proposition to the effect that some country has a coast and it asserts that Estonia has a coast. *Mari gave up smoking* presupposes that the context includes the proposition that Mari smoked at some point in the past and asserts that she doesn't smoke now. In each case, if the context doesn't do as the sentence presupposes, the sentence will sound odd—infelicitous (Austin, 1975).

A sentence of the form *The NP VP* presupposes there to already be a unique object in the context which satisfies the NP. But it asserts that the object it's speaking of is identical to that unique object. This contrasts with both *A(n) NP VP* and *Another NP VP*. *An NP VP* expects nothing of the context. All it does is introduce a new object to speak of, and says of it, that it satisfies the NP and the VP. So it has the same asserted content as *The NP VP* but differs in what it expects of the existing context. On the other hand, *Another NP VP* expects the same of the context as *The NP VP*. But it asserts something different. It asserts that what it's talking about is different from the item already in the context which satisfies the NP.

Now I could write this out more formally but (a) for the intended audience of this paper that would not be of any help and (b) it's simply not necessary to understand Grønn and Sæbø's theory well enough to make predictions with it about English and Estonian. So I will just write a summary of the meanings which Grønn and Sæbø ascribe to these three words.

A(n) NP

Presupposes: nothing

Asserts: that there's an object that satisfies the NP.

The NP

Presupposes: that there is a unique object in the context that satisfies the NP.

Asserts: that there's an object which satisfies the NP which is identical to the unique object already in the context that satisfies the NP.

Another NP

Presupposes: that there is a unique object in the context that satisfies the NP.

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| Asserts: | that there's an object which satisfies the NP which is distinct from the unique object already in the context that satisfies the NP. |

Notice that these analyses make familiarity central to the notion of definiteness employed in the meaning of *the*: the asserted contents of *the* and *another* are, in part, about co-reference. An alternative approach would make uniqueness the central notion in the meaning of *the* (Abbott, 2004). The familiarity approach allows us however to understand the relation of *the* to *another*: they both require contextual uniqueness (the presupposition) but they differ in whether they are used to refer back to something already spoken of, or instead to speak of something new. The uniqueness account of *the* would not allow this comparison (Grønn & Sæbø, 2012, p. 8).

2.2 The principles: the maxim of quantity, maximize presupposition and signalling costs

On now to the second part of the theory: the norms governing interpretation. There are three that Grønn and Sæbø deploy. As we'll see, two of them (the maxim of quantity and maximize presupposition) have complementary applications, while the third (avoid signalling costs) will be understood as secondary: finding application only after the other two principles have already been applied (if it's possible to do so at all).

The first is the Gricean maxim of quantity (Grice, 1989). Gricean maxims are rules governing conversational contributions: rules about what we ought to be doing. The maxim of quantity states that one should make one's contribution as informative as required by the purposes of the exchange. Choices between *a, the* and *another* convey different amounts of information. On Grønn and Sæbø's account, a use of *a* says nothing about whether one is referring back to something already referred to, or instead, referring to something new. But a use of *the* or *another* does convey this information. One might think this means that the maxim of quantity always favours use of *the* or *another* over use of *a*. But this isn't true. For in many cases, the sentence of which the determiner is a part, in its context, already conveys the information conveyed by the determiner. When that happens, the maxim of quantity doesn't require the speaker to use any one of the determiners over another. We'll come back to this point.

The second principle that Grønn and Sæbø appeal to can be called "maximize presupposition." According to this principle, if you have a choice between equally informative options of the words you could utter, but where the options differ in their presuppositions, then, if the context supports the presupposition(s), you should opt for the word that is presuppositionally stronger (the principle has its origin in Heim's (1991) work on definiteness, but has subsequently been developed by others (e.g. (Percus, 2006))). At first glance, maximize presupposition would seem to have no application to *a, the*, and *another*: for they all differ in assertive content from one another. However, there are sentences such that, replacement of one determiner with another results in no change in informativeness: this happens when the sentence (minus the determiner)

plus its surrounding context already conveys the extra information that *the* or *another* have over *a* e.g. when the sentence (in context) makes clear that the NP with which the determiner combines has a referent that is the same or distinct from another object already in the context (see sentences (8) and (9) below). In that case there'll be no informational difference between either *a* and *the* or *a* and *another*. When that happens, and when the presupposition of each is satisfied by the context, maximize presupposition has application and will favour *the* and *another* over *a* because they are presuppositionally stronger than *a*.

What we're going to find is that which of these two principles is in play depends upon what information is conveyed by the parts of the sentence that don't contain the determiner.

The third principle that Grønn and Sæbø appeal to is the principle that you should avoid signalling cost if you can. The more time and complexity there is to the constructions you use to communicate, the greater the signalling cost. If you could communicate the same thing with fewer or shorter words, then that is preferred. This principle puts *another* at a disadvantage relative to *a* and *the* because *another* is significantly more complex than *a* and *the*.

2.3 Putting the meanings and principles together

To explain how these principles and meanings interact, let's first distinguish between situations in which there is no unique F in the context and situations in which there is a unique F in the context.

When there is no unique F in the context, the presuppositions of *the* and *another* are not satisfied and the asserted content of these expressions would be inapplicable: one would be claiming things that are not true (which is not the same as claiming something false). So, both with respect to the maxim of quantity and maximize presupposition, one should favour *a* over both *the* and *another*.

We can distinguish between three situations in which there is a unique F in the context: one in which it's clear from the rest of the sentence(s)' content, that the relevant NP is referring back to an object already familiar to us; one in which it's clear that from the rest of the sentence(s)' content, that the relevant NP is referring to an object that is distinct from the object already familiar to us; and one in which the rest of the sentence is uninformative in this regard—the determiner is not informationally redundant. We'll go through each kind of situation in turn.

Firstly, when the sentence makes clear that the relevant NP is referring back to the unique F in the context, the sentence cannot be uninformative through selection of *a* over *the* because the

sentence content already communicates whether we're referring back.[5] For instance, consider the following sentences (from (Grønn & Sæbø, 2012)):

(8) #Madeleine Albright . . . told me that she'd met a woman and asked her if she was going to vote for me, and a woman said no, because . . .

(9) The First Lady addressed the group of girls and asked one of them to sing a song. #A girl refused.

In (8), since the woman who said *no* is clearly the woman who Albright met (since the *no* is a response to Albright's question which was directed at this one woman), we know, even if the uninformative *a* is put before the second occurrence of *woman*, that the speaker is talking about the same woman again. Similarly, in (9), the verb *refused* presupposes that a request has been made, and in the context, the only request made was to a particular girl. So we know that the occurrence of *girl* in the second sentence refers back to this girl, even if the uninformative *a* is used. Nonetheless, in each case, use of *a* is infelicitous.

As an exercise, consider a parallel example with a blank rather than "the wrong" determiner:

(10) Madeleine Albright . . . told me that she'd met a woman and asked her if she was going to vote for me, and __ woman said no, because . . .

If I ask you (assuming you speak English) which determiner to put in the blank, the linguistic context makes it abundantly obvious that the blank is to be filled in with a determiner indicating uniqueness. In this respect, the determiner itself is informationally redundant.

This cannot be because the maxim of quantity is violated. But for precisely the same reason, maximize presupposition does has application. And in this circumstance maximize presupposition will have been violated if *a* is employed: since the context of the relevant NP satisfies the presupposition of both *the* and *another*. However, *another* is ruled out as incoherent: since the content of the sentence already makes it clear that we're referring back, and not to a new object. Thus, *the* is called for: it satisfies maximization presupposition without generating an incoherent content.[6]

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[5] Sometimes a sentence does this only given background assumptions about how the world works: assumptions which may be jettisoned. When they are, then Grønn & Sæbø's theory will make different predictions.

[6] There is more complexity here than Grønn & Sæbø acknowledge. Things get much better (more felicitous) if we add in a relative clause. For instance:

> The First Lady addressed the group of girls and asked one of them to sing a song. A girl who was especially timid and shy refused outright, but some of the other girls volunteered.

Secondly, there are sentences that clearly indicate that a new F is being referred to even if the indefinite determiner is combined with the relevant NP. Consider the following sentence (from earlier):

John and Mary are in a bookshop.

(11)   John bought a book and then Mary bought a book.

The book that Mary bought cannot be the book that John bought because, setting aside non-salient contexts, once it's bought it's not on sale anymore. This renders the maxim of quantity moot: it won't favour the use of *the* or *another* over *a*. Maximize presupposition is therefore however predicted to apply and so one might expect *another* to be required. However, *another* is significantly more complex than *a* and so signalling cost considerations make *a* permissible in this circumstance: overriding the dictate of maximize presupposition.[7]

Note then: there's an asymmetry between the effect of sentences (in their contexts) that make the NP refer back to the unique F (which results in *the* becoming compulsory) and the effect of sentences (in their contexts) that make the NP refer to something distinct from the unique F (which results in *a* being permissible in addition to *another*) because of the greater signalling cost of *another* over *a* (compared to the signalling cost of *the* over *a*).

Thirdly, there are situations in which the sentence is uninformative as to whether the relevant NP refers back to the unique F in the context. Consider:

(12)   #Vicky lives with a Spanish man and a Spanish woman. She loves a man.
(13)   #Richard heard the Beaux-Arts Trio with its new cellist and its new violinist last night and afterwards had a beer with a cellist.

In (12), it's not clear whether Vicky loves the Spanish man she lives with or another one. In (13) it's not clear whether Richard had a beer with the new cellist in the trio or another cellist. In each case, the maxim of quantity is not moot and it'll favour *the* or *another* depending on what the truth is—rendering, in any case, *a* infelicitous.

This seems to reflect a well-known feature of Russian (an articleless language) (for discussion see (Geist, 2010)), wherein relative clauses can make bare NPs definite. The same is so of Estonian. But I won't integrate this observation into the current work.

[7] Peter Sutton has brought to my attention the following apparent counterexample to this signalling cost principle. *An acquisition/takeover is the purchase of one business or company by another/#a company.* (And the same can be seen in Estonian: *Ettevõtte ülevõtmine on ettevõtte ostmine teise ettevõtte poolt*). Assuming that it's obvious that a company cannot buy itself, the principle Grønn & Sæbø deploy predicts that both *another* and *a* should be permissible here. But there seems to be a difference in permissibility. It's possible that the construction *one … by another …* is somehow idiomatic. But if not, then this is a problem for Grønn & Sæbø's theory.

2.4 Another constraint

Consider:

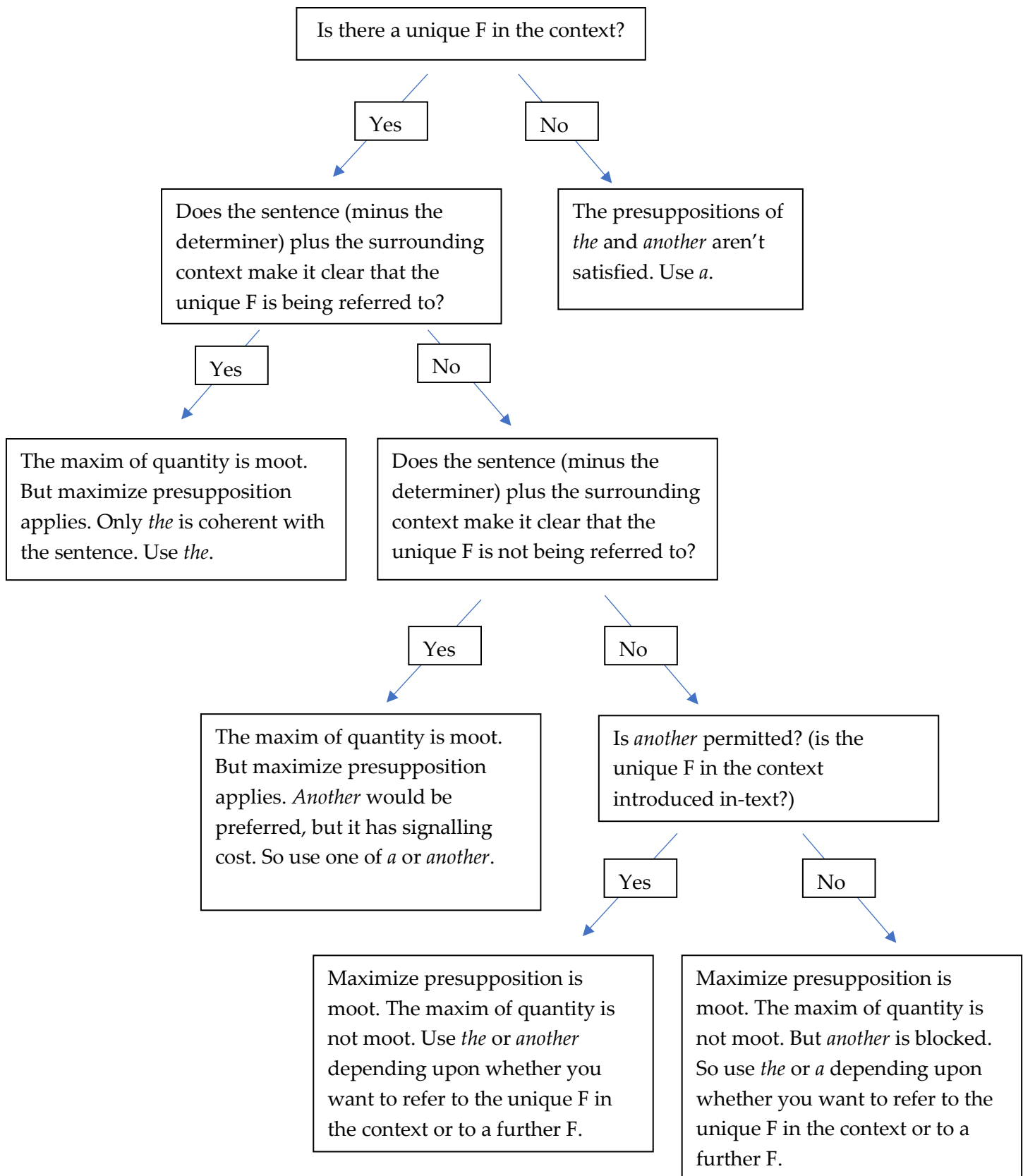(14)   Richard heard the Beaux-Arts Trio last night and afterwards had a beer with a cellist.

This sounds like a new cellist is being spoken of. Yet the content of the sentence (minus the determiner) doesn't make this obvious: there'd be nothing incoherent about using *the* in place of *a*. So this isn't a situation of the second kind: wherein the maxim of quantity would be irrelevant (because the sentence already makes clear that distinct reference is being made) and *a* would be favoured over *another* because of signalling cost. So why isn't *another* required in order to speak of a new cellist? Well, we can see here that *another* is not possible:

(15)   #Richard heard the Beaux-Arts Trio last night and afterwards had a beer with another cellist.

It seems that *another* can only be used when the prior F whose presence in the context it presupposes has been explicitly introduced by some prior expression. In this way, *another* contrasts with *the*: which has *bridging* uses (as in, *My friend had a wedding. The cake was enormous*. Or *A baby cried. The mother picked it up.*). So *a* is permitted here not because the sentence's other content renders the maxim of quantity moot, but instead because *another* cannot be used in such a sentence (it doesn't have bridging uses).

2.5 The big picture

So, to summarize:

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                    ┌─────────────────────────────────┐
                    │ Is there a unique F in the context? │
                    └─────────────────────────────────┘
                         Yes              No

┌──────────────────────────────────┐    ┌──────────────────────────────┐
│ Does the sentence (minus the     │    │ The presuppositions of       │
│ determiner) plus the surrounding │    │ the and another aren't       │
│ context make it clear that the   │    │ satisfied. Use a.            │
│ unique F is being referred to?   │    └──────────────────────────────┘
└──────────────────────────────────┘
         Yes              No
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The maxim of quantity is moot. But maximize presupposition applies. Only *the* is coherent with the sentence. Use *the*.

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┌──────────────────────────────────┐
│ Does the sentence (minus the     │
│ determiner) plus the surrounding │
│ context make it clear that the   │
│ unique F is not being referred to? │
└──────────────────────────────────┘
         Yes              No
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The maxim of quantity is moot. But maximize presupposition applies. *Another* would be preferred, but it has signalling cost. So use one of *a* or *another*.

Is *another* permitted? (is the unique F in the context introduced in-text?)

Yes   No

Maximize presupposition is moot. The maxim of quantity is not moot. Use *the* or *another* depending upon whether you want to refer to the unique F in the context or to a further F.

Maximize presupposition is moot. The maxim of quantity is not moot. But *another* is blocked. So use *the* or *a* depending upon whether you want to refer to the unique F in the context or to a further F.

3 Applying Grønn and Sæbø's theory to Estonian

To apply the theory to Estonian, we need to identify words to which to apply the meanings we find in English and then let them, as it were, swim in the currents of the three pragmatic principles. Estonian has no definite article. But we saw earlier, bare singular NPs can be interpreted unambiguously definitely/anaphorically in some contexts and in other contexts they can be interpreted unambiguously indefinitely (as introducing new objects into the context). So our words of interest will be bare singular NPs and the expression *üks teine* ("another").

3.1 The meanings of øNP and *üks teine*

We assume that a øNP is (when out of context) ambiguous between the meaning Grønn and Sæbø assign to *a* and the meaning Grønn and Sæbø assign to *the*.

    øNP-indef

Presupposes:	nothing
Asserts:	that there's an object that satisfies the NP.

    øNP-def

Presupposes:	that there is a unique object in the context that satisfies the NP.
Asserts:	that there's an object which satisfies the NP which is identical to the unique object already in the context that satisfies the NP.

The meaning that the English *another* has is assigned to the Estonian *üks teine*:

    üks teine NP

Presupposes:	that there is a unique object in the context that satisfies the NP.
Asserts:	that there's an object which satisfies the NP which is distinct from the unique object already in the context that satisfies the NP.

3.2 The principles

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These remain the same as in English. But it should be noted that this is an unorthodox application of maximize presupposition: usually the alternatives the principle selects between are lexical items (Percus, 2006) or syntactic structures (Collins, 2016) and not the disambiguated meanings of an ambiguous expression. But it is perhaps unorthodox purely because not much attention has been given to expressions that are ambiguous between two meanings such that they are informationally equivalent but different with respect to what they presuppose. But there are such expressions in, for instance, English, and maximize presupposition seems to operate with respect to their two meanings: the presupposing meaning and the non-presupposing meaning.

Take *told* and *understands* as examples. Each has both a factive and non-factive reading.

(16) Mary didn't tell her father that she's pregnant.
(17) Mary's father understands that she's pregnant.

Sentence (16) can mean that there's a fact which Mary didn't let her father know. Or it can mean that she didn't say that she's pregnant to her father. Sentence (17) can mean that Mary's father knows that Mary's pregnant or it can mean that he thinks that she's pregnant—where the speaker leaves it an open question as to whether she really is.

If, however, we fill in the context to confirm the presupposition (and thus maximize presupposition will require adoption of the presuppositionally stronger meaning), then the ambiguity falls away.

(18) Mary found out that she was pregnant. She told all her friends. But Mary didn't tell her father that she's pregnant.
(19) Mary found out that she was pregnant and told her father this. So Mary's father understands that she's pregnant. He just doesn't know how it could have happened.

In any case, we'll be supposing that maximize presupposition can have application to alternative meanings of a single lexical item.

3.3 Putting the principles and the meanings together

Again, we should address this by dividing situations into different categories. Firstly, between those situations in which there is no unique F in the context, and those situations in which there is. And secondly, amongst the latter sort of situation: between those in which the sentence plus context indicates the øNP refers back to the unique F; those in which the sentence plus context indicates the øNP refers to another F; those in which the sentence is uninformative in this respect.

Firstly, there are situations in which there's no prior F in the context: note, we're not talking about situations in which it's unclear whether there is, but rather situations in which it's clear

that there's not already such an object in the context. In this case, the presuppositions of *øNP -def* and *üks teine* are not satisfied and the asserted content of these expressions would be inapplicable: one would be claiming things that are not true. So, both with respect to the maxim of quantity and to maximize presupposition one should favour *øNP-indef* over both *øNP-def* and *üks teine*.

What happened? (asked whilst looking a crumpled car, at a scrap yard)

(20) Mees sõitis vastu puud.
Man drove against tree.
A man drove into a tree.

When it is known that there are no men or trees in the context, then *mees* and *puu* will be understood to introduce new objects into the context. They won't refer back to a prior man and a prior tree, respectively. The use of the øNPs in this context doesn't generate infelicity: just as one would expect if the øNPs had to have the definite meaning but were used in such a context.

This is what we predict, given the principles and meanings hypothesized. The presuppositions of *øNP-definite* and *üks teine* will not be satisfied, and thus *øNP-indef* will be the only meaning available. So, we expect *mees* and *puu* to be understood indefinitely as introducing new objects to the context.

Now consider situations in which there is a unique F in the context. Consider situations of the first of the three sub-kinds first. These correspond to (7) and (8) above:

(21) Madeleine Albright . . . ütles mulle, et ta kohtas üht naist
Madelein Albright… said to me that she met one woman

ja küsis sellelt naiselt, kas ta hääletab tema
and asked from this woman whether she vote her

poolt, ja (#üks) naine ütles „ei", sest...
direction and (one) woman said "no" because…

Madelein Albright… told me that she met a woman and asked her whether she is going to vote for her and the (*a) woman said "no" because…

(22) Esimene leedi rääkis grupi tüdrukutega ja palus ühel
First lady spoke group girls-with and asked one

neist laulu laulda. (#Üks) Tüdruk keeldus.

| from them | song | to sing. | (#One) girl | refused. |

The first lady spoke to a group of girls and asked one of them to sing a song. (*A) The girl refused.

In these sentences, the final occurrence of *naine* and *tüdruk* respectively must be anaphoric. And this is predicted by Grønn and Sæbø's theory. When the sentence makes clear that their occurrence refers back, the maxim of quantity has no application: since regardless of which meaning the øNPs had (definite or indefinite) the sentence in context already makes clear that coreference is occurring. But for the same reason, maximize presupposition will have application: since the sentences are so designed that there's no informational difference between *øNPs-def* and *øNPs-indef*. So maximize presupposition will favour the former over the latter. Moreover, if we force the indefinite meaning by using *üks* ("one"), then we generate infelicity: which is, again, explained by the application of maximize presupposition.

Consider now situations in which the sentence makes clear that a new F is being referred to, despite the existence of a unique F already in the context. This sentence corresponds to the English (7):

Jaan and Mari are in a bookshop.

(23)	Jaan	ostis	raamatu	ja	siis	Mari	ostis	raaamatu.
	Jaan	bought	book	and	then	Mari	bought	book.

Jaan bought a book and then Mari bought a book.

Once again, the maxim of quantity is moot because the sentence already indicates that there are two different objects being introduced into the context: so no violation of that maxim is brought about by using the indefinite over the definite meaning of the øNP. But in this case, maximize presupposition has application and will favour use of *üks teine* over *øNP-indef*. However, *üks teine* is clearly more complex than the øNP by itself. So signalling cost favours use of the øNP with an indefinite meaning over the introduction of *üks teine*: making *üks teine* possible but optional.

Moreover, when the indefinite meaning is marked by using *üks* then we get no infelicity. This is to be expected given that *üks NP* is still simpler than *üks teine NP*. But *üks* is itself not obligatory, since it is itself more complex than the øNP by itself.

Finally consider a sentence whose content and context doesn't already make clear whether coreference is taking place (corresponding to the English (11) and (12)):

(24)	Vicky	elab	ühe	meessoost	hispaanlasega ja	ühe	naissoost
	Vicky	lives	one	male	Spaniard-with and	one	female

hispaanlasega.	Ta	armastab	(#üht) meessoost	hispaanlast.
Spaniard-with.	She	loves	(#one) male	Spaniard.

Vicky lives with a Spanish man and a Spanish woman. She is in love with (#a) the Spanish man.

(25) Jaan läks   Kreatiivmootori   esinemist   vaatama.   Nad   mängisid
Jaan went   Kreatiivmootor   performance   watch.   They   played

koos   uue   saksofonistiga.   Seejärel   läks Jaan   (#ühe)
Together   new   saxophonist-with.   Then   went Jaan   (#one)

saksofonistiga   õllele.
Saxophonist-with   to-beer.

Jaan went to watch a/the Kreatiivmootor performance. They played together with a new saxophonist. Then Jaan went for a beer with (#a) the saxophonist.

In these sentences, the content of the sentence abstracted from the content of the second uses of *meessoost hispaanlane* and *saksofonistiga* doesn't tell us enough to know whether the Spanish man and the saxophonist are those already mentioned or new ones. This means that maximize presupposition does not apply, because the choice between *øNP-indef* on the one hand, and *øNP-def* or *üks teine* on the other, is not a choice between informationally equivalent meanings. However, this does give space for the maxim of quantity to kick in. This maxim will require the use of either *øNP-def* or else *üks teine* depending on which is the truth. Thus, if we mark the indefinite meaning by using *üks*, then we get infelicity in these sentences (just as we would if we were to use the indefinite article in these locations in English).

3.4 Üks teine constraint

Finally, notice that the constraint on *another* is also a constraint on *üks teine*: both require a prior F to not just be present in the context, but also to have been explicitly introduced in the preceding text by a prior expression. This can be used to explain the following:

(26) Jaan läks   Kreatiivmootori   esinemist   vaatama   ja   seejärel
Jaan went   Kreatiivmootor   performance   watch   and   then

läks   Jaan   saksofonistiga   õllele.
went Jaan   saxophonist-with   to-beer.

Jaan went to watch the/a Kreatiivmootor performance and then went for a beer with the saxophonist.
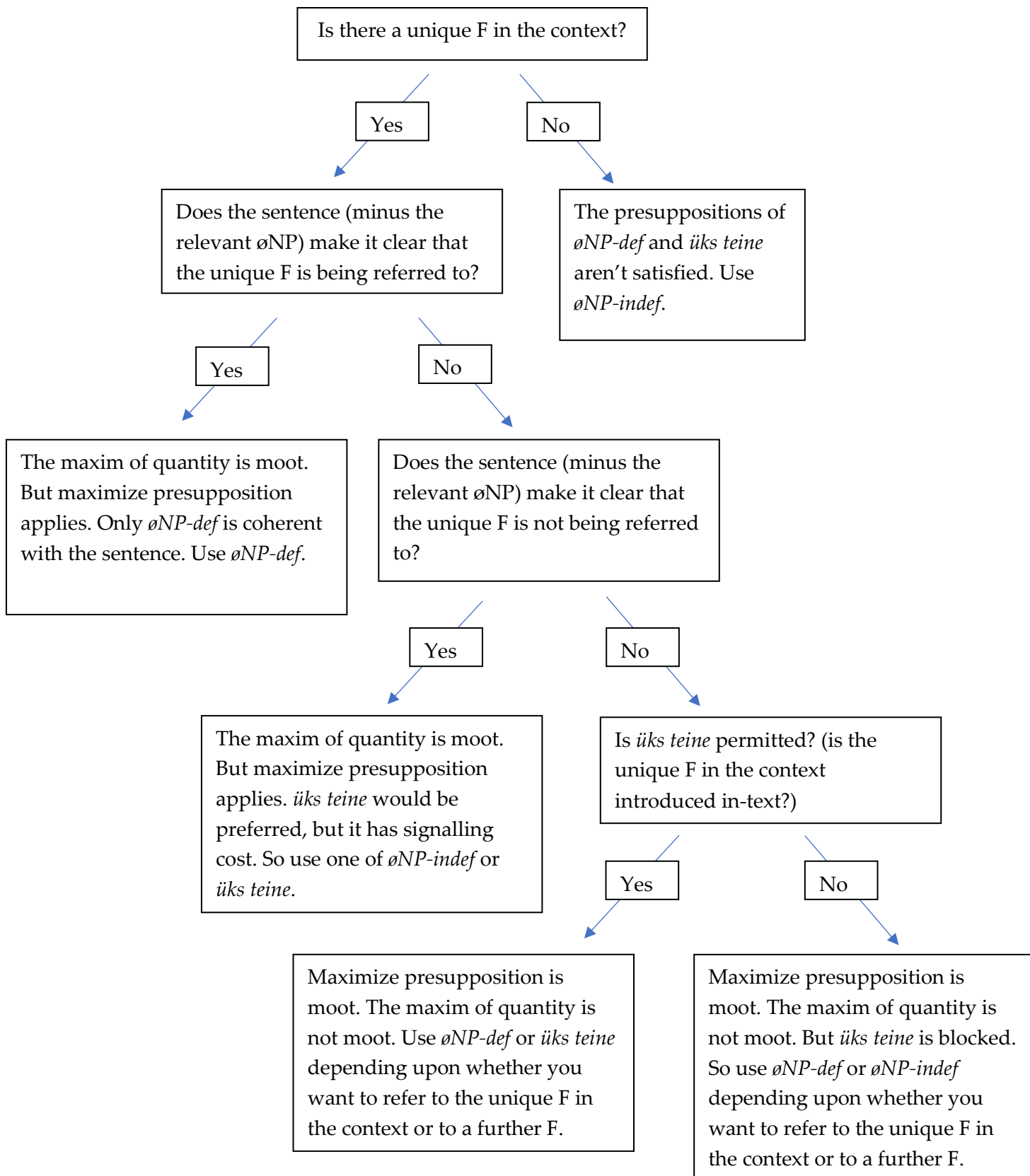
15

(27) | #Jaan läks | Kreatiivmootori | esinemist | vaatama | ja | seejärel |
| #Jaan went | Kreatiivmootor | performance | watch | and | then |

| läks | Jaan | ühe teise | saksofonistiga | õllele. |
| went | Jaan | another | saxophonist-with | to-beer. |

#Jaan went to watch a/the Kreatiivmootor performance and then Jaan went for a beer with another saxophonist.

In (27), we get infelicity. But in (26) the øNP *saksofonist* is understood to refer to a new saxophonist: not the one that plays in Kreatiivmootor. *Üks teine* is blocked in (26)/(27) because there's no in-text antecedent. And because the sentence doesn't make clear whether the saxophonist is from Kreatiivmootor or not, maximize presupposition doesn't apply. But the maxim of quantity favours use of either *øNP-def* or *üks teine*. But if you wanted to say that this is a new saxophonist (not the one from Kreatiivmootor), then you don't want to use *øNP-def*. Since *üks teine* is blocked, the øNP is then understood as taking up the meaning of *üks teine* meaning: just as in English the use of an indefinite NP in this context would take on the meaning of *another*.

3.5 The big picture

Is there a unique F in the context?

Yes → Does the sentence (minus the relevant øNP) make it clear that the unique F is being referred to?

No → The presuppositions of *øNP-def* and *üks teine* aren't satisfied. Use *øNP-indef*.

Does the sentence (minus the relevant øNP) make it clear that the unique F is being referred to?

Yes → The maxim of quantity is moot. But maximize presupposition applies. Only *øNP-def* is coherent with the sentence. Use *øNP-def*.

No → Does the sentence (minus the relevant øNP) make it clear that the unique F is not being referred to?

Does the sentence (minus the relevant øNP) make it clear that the unique F is not being referred to?

Yes → The maxim of quantity is moot. But maximize presupposition applies. *üks teine* would be preferred, but it has signalling cost. So use one of *øNP-indef* or *üks teine*.

No → Is *üks teine* permitted? (is the unique F in the context introduced in-text?)

Is *üks teine* permitted? (is the unique F in the context introduced in-text?)

Yes → Maximize presupposition is moot. The maxim of quantity is not moot. Use *øNP-def* or *üks teine* depending upon whether you want to refer to the unique F in the context or to a further F.

No → Maximize presupposition is moot. The maxim of quantity is not moot. But *üks teine* is blocked. So use *øNP-def* or *øNP-indef* depending upon whether you want to refer to the unique F in the context or to a further F.

4 A background against which marking choices are made

Given that øNPs will automatically be understood as definite, indefinite, or as ambiguous in accordance with the described pragmatic principles, we can ask: when would one have a need to use determiners which explicitly mark definiteness? (words like *üks* ("one") and *see* ("this")).

Here's one situation in which an explicit marker of definiteness would be useful, given this pragmatic background. An object is introduced into the context but it is not mentioned for several sentences, and so is not particularly salient. In such a situation, it could be unclear whether such an object counts as a unique satisfier of the øNP in context. So one cannot use the context, plus the pragmatic principles described, to disambiguate the øNP: something which would otherwise happen. In such a circumstance, it might well be helpful to use a marker of definiteness to rule out the possibility that the øNP is being used with an indefinite meaning. This is consistent with one finding of Hint et al. (2017, p. 88); viz. that "referential distance is an important predictor in the choice of determiners." When distance increases then it's more likely that *see* will be employed. But it's just when distance increases that a øNP can start to become ambiguous because it can become less clear whether there is a unique satisfier of the NP in the context.

Here's another situation in which explicit definiteness marking may be useful. In intensional contexts where the remainder of the sentence does not make plain whether coreference with an earlier item is being made, the intensional sentence will be ambiguous between a de re and a de dicto reading. Hint et al. report one such context:

…ning aitas	selle	lohe	puu	otsast		alla	ning	loheomanik	oli
… and helped	this	kite	tree	from	topp	down	and	kite owner	was

Õnnelik	et	ta	selle	lohe	kätte	sai.
Happy	that	he/she	this	kite	to hand	got.

And helped get the kite down from the tree and the kite owner was happy that he got the kite back.

The demonstrative *see* forces a de re reading of the sentence where without it the sentence could have been read as a dicto: viz. that what the kite owner was happy about was getting a kite back, not necessarily his specific kite. The case parallels one considered by Grønn and Sæbø (2012, p. 21):

When a Samaritan woman came to draw water, Jesus said to her, "Will you give me a drink?" (His disciples had gone into the town to buy food.) The Samaritan woman said

to him, "You are a Jew and I am a Samaritan woman. How can you ask me for a drink?" Just then his disciples returned and were surprised to find him talking with a woman.

Of interest is the final *a woman*. What the disciples were surprised about was that he was talking with a woman whatsoever and not just with this particular woman. The choice of determiners in English allows one to distinguish between the two readings: the indefinite favouring the de dicto reading and the definite favouring the de re reading. This possibility allows, in English, the use of the indefinite even though in the context there is a unique satisfier of the NP. Given its presence, and given that the sentence doesn't indicate coreference, and given that *another* is not blocked, *another* would have been required by the maxim of quantity. But it clearly isn't. We can explain this exception by the fact that the indefinite appears in the context of an intensional verb and serves not to say that there is a new woman on the scene (*another* would clearly make little sense in this context), but rather to specify that it was the property of being a woman that surprised the disciples.

In the example provided by Hint et al (2017, p. 89), we see something similar, but where here, the speaker wants to make clear a de re reading: i.e. that what the kite owner was happy about is getting their own kite back and not just some kite or other back. This would otherwise be ambiguous had a øNP been employed. The demonstrative thus serves to disambiguate what would have been ambiguous.

5 Conclusion

This paper has examined what happens when we apply Grønn and Sæbø's theory of the pragmatic principles governing article use in English to the interpretation of øNPs in Estonian. We have proceeded by assuming that Estonian øNPs are ambiguous between the meaning Grønn and Sæbø assign to *the* and the meaning they assign to *a*. The pragmatic principles decsribed by Grønn and Sæbø are then applied to these meanings. For a set of data that parallels the data used by Grønn and Sæbø to support their own contentions about English, the resulting theory works quite nicely.

However, it's clear that things are not so simple. There are, for instance, many word order effects on the interpretation of Estonian øNPs about which the proferred theory says nothing (at least not without being combined with a suitable theory of word order). I won't go into these because there's not much that is useful that I can say about them. I am simply acknowledging that what's been presented here is preliminary. My suspicion though is that word orders are suggestive of the structure of the conversation that precedes the sentence and this in turn implies something about whether there's a unique F in the context, but that these are merely suggestions. It's possible to construct contexts in which sentences with these word orders will allow different interpretations of the øNPs, and that this will conform to the theory described above. The thesis then is: word order isn't a direct constraint on definiteness. It rather is

suggestive of the contents of the context of the sentence, and it's this which most directly shapes the interpretation of the øNPs. Whether this hypothesis is correct, however, obviously requires further investigation. I'd need a better understanding of what word order in Estonian implies about the conversation preceding the relevant sentence.

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