Strong and Weak Quantifiers in Malayalam

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Introduction

The strength of a quantifier determiner depends on the specific readings available for it in its contexts of occurrence. This paper aims to put forward a way to distinguish between the strong and weak quantifiers in Malayalam based on their internal composition.

This paper is organized in the following manner. The first section lays out the data. Section 2 discusses 'there'-test as a means to distinguish strong and weak determiners and show how it is ineffective when applied to Malayalam quantifiers. Section 3 discusses Moltmann (2006)'s definition of strong and weak quantifiers. Section 4 analyses the quantifiers in Malayalam based on this definition and shows that the quantifiers having *–um* in their composition are the strong quantifiers following the definition of Moltmann (2006).

1.Quantifiers in Malayalam

Quantifiers (more specifically scalar quantifiers) in Malayalam can correspond to a single word or a complex structure of morphemes. That is, a quantifier is often composed of more than one morpheme, each having a role in the composition of that quantifier. A scalar quantifier in Malayalam usually has a quantifier word, an NP and a coordination morpheme in its composition. There are some scalar quantifiers which have just the quantifier word in their composition as well. The examples in (1) and (2) illustrate the occurrence of the (universal) scalar quantifier *ellaa…-um* and the existential quantifier *cila*.

1. class-ile   **ellaa**   kuTTikaL-**um** pariiksha   pass-aayi

   class-LOC   all   children-CONJ   exam   pass-became

   'all the children in the class passed the exam.

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2. class-ile   **cila**   kuTTikaL   pariiksha   pass-aayi

    class-LOC   some   children   exam   pass-became

    'some children in the class passed the exam'

Here, the universal quantifier in (1) is composed of the quantifier as well as –*um,* the conjunctive suffix. The existential quantifier *cila* on the other hand can occur by itself.

The specific properties and interpretations of a quantifier depend on its individual composition. This paper argues that whether or not a quantifier is strong is determined by its internal composition. I argue that the quantifiers having –*um* (a conjunctive suffix) in their composition tend to receive a strong quantifierreading whereas those which do not have –*um* in their composition always get weak reading.

Strong quantifiers in English are 'every', 'both' 'most' etc. The corresponding quantifiers in Malayalam are *ellaa, mik'k'a,* etc. Examples of weak quantifiers in English are 'some'and 'many'. The corresponding quantifier for 'some' is *cila*. There are two readings available for 'many'- cardinal and proportionate. I argue that the cardinal reading of 'many'is a weak quantifier whereas the proportionate 'many' is a strong quantifier. There are two separate lexical entries in Malayalam corresponding to the two readings of 'many' in English. *pala…-um* corresponds to the proportionate reading of 'many' and *kuRe* corresponds to the weak cardinal reading of 'many'. This gives us a pattern of strong and weak quantifiers in Malayalam. The quantifiers having –*um* in their composition are by and large the strong quantifiers and those which do not have –*um* in their composition (*cila, kuRe*) are the weak quantifiers in Malayalam.

2. 'There'-test

According to Barwise and Cooper (1981), a strong quantifier determiner is not good in a sentence of the form *there is/are* NP. Barwise and Cooper (1981) argues that when a positive strong quantifier occurs in 'there' construction the result will be a tautology, when a negative strong quantifier occurs , it will be a contradiction and if it is a weak quantifier, the result will depend on the interpretation of the quantifier.

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For example, 'every man is a man' is a tautology. 'No man is a man' is a contradiction and 'some men are men' depends on the interpretation of 'some'. This account explains well the division of determiners into *strong* and *weak* with respect to English. I will check whether this account can distinguish between strong and weak quantifiers in Malayalam.

The corresponding quantifiers for 'all' 'most' 'both', 'the two' etc. in Malayalam are *ellaa*, *mik'k'a*, *raNT-um* etc. respectively. Similarly, the corresponding quantifiers for weak quantifiers such as 'some' and 'many' are *cila* and *kuRe* respectively in Malayalam. Consider the examples in (3). All the sentences in (3) are fine in Malayalam but the glosses in (3d) and (3e) alone are acceptable in English.

3. a) toTTatt-il   **ellaa**   kuTTikaL-**um** uNTə

      garden-LOC   all   children-CONJ   COPULA

      Intend: 'there are all the children in the garden.'

   b)   toTTatt-il   **mik'k'ə**   kuTTikaL-**um**   uNTə

      garden-LOC   most   children-CONJ   COPULA

      Intend: 'there are most of the children in the garden.'

   c)   toTTatt-il   **pala**   kuTTikaL-**um** uNTə

      garden-LOC   many   children-CONJ   COPULA

      Intend: 'there are many of the children in the garden.'

   d)   toTTatt-il   **cila**   kuTTikaL   uNTə

      garden-LOC   some   children   COPULA

      'there are some children in the garden.'

   e)   toTTatt-il   **kuRe**   kuTTikaL   uNTə

      garden-LOC   many   children   COPULA

      there are many children in the garden.'

These examples show that 'there' test does not seem to work well for distinguishing strong and weak quantifiers in Malayalam as illustrated in the sentences in example (3). I will

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next take for consideration the analysis of quantifiers given by Moltmann (2006) to check if it succeeds in distinguishing the strong and weak quantifiers in Malayalam.

3. Moltmann (2006)

According to Moltmann (2006), some quantifiers, namely strong quantifiers display a disjunctive condition regarding their domain. They have a presupposition involving quantifier domains rather than propositions and hence she calls it domain presupposition. Strong quantifiers require their entire domain to be presupposed prior to the evaluation of the quantifier in the current index. Moltmann makes use of the terms 'context' and 'index' in a specific sense here. According to her context is the context of utterance (consisting at least of the world and the time at which the utterance is made), whereas the index is an additional circumstance that may diverge from the first one as a result of evaluating an intensional operator (consisting of the world and perhaps time of evaluation). Relative to a context a sentence has content, or expresses a proposition, and relative to a context and an index it has a truth value.

Presuppositions are conditions that need to be verified prior to the semantic evaluation of the presupposition trigger in the process of truth conditional evaluation of a sentence. Moltmann (2006) states that this requirement of 'semantic anchoring' of presuppositions can be satisfied in one of two distinct ways: either the presupposition is verified with respect to the utterance context (in addition to the index) or else it corresponds to explicit material which has already been evaluated semantically and acts as an antecedent of the presupposition trigger. Domain Presupposition also manifests these two disjunctive ways. It concerns the identification of the quantifier domain prior to the evaluation of the quantificational NP at the current index.

According to Moltmann (2006) the semantic anchoring of a domain presupposition is to be achieved in exactly analogous ways to the semantic anchoring of a conceptual presupposition of a proposition: the restriction of the determiner at the index of evaluation must have the same extension as when evaluated with respect to the context of evaluation or else it must be anaphoric to some previously evaluated set description. For example, consider the sentences in (4) from Moltmann (2006).

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4. a) John might write ten books, and he might publish every book.

   b) John might publish every book.

Moltmann argues that whereas the domain of *every book* in (4a) can be identified with the set of possible entities introduced by ten books, in (4b) it must consist of the actual entities identified by the utterance context. That is, in (4a) the domain of *every book* is anaphorically linked to some preceding descriptive content, whereas in (4b) it is identical to the domain the quantifier would have relative to the context of the utterance. What is presupposed in the case of strong quantifiers is a set of objects rather than a proposition.

This means that strong quantifiers have a restriction that is either co-indexed with a property in the background or else must be evaluated with respect to the utterance context and not just the current index.

4.Distinction between Strong and Weak Quantifiers in Malayalam

Drawing from the analysis of strong quantifiers in Moltmann (2006) I argue that quantifiers having –*um* in their composition are strong quantifiers in Malayalam. My argument goes along the following lines. The quantifiers having –*um* in their composition such as *ellaa…-um, mik'k'a…-um* and *pala…-um* are proportionate quantifiers. It can be further deduced that their quantifier domain has to be always definite, that is familiar to the discourse context. The requirement that the domain of quantification be verified prior to the utterance of the sentence is a property of strong quantifiers according to Moltmann (2006). If that is taken to be true, it logically follows that quantifiers having –*um* in their composition are strong quantifiers. Consider the examples from (5) to (7). The quantifier in the second sentence refers to the NP in the first sentence in each of these sentences.

5. Raman anchu pusthakaŋŋaL waaŋŋi. Awan **ellaa**   pustakaŋŋaL-**um**   waayiccu
   Raman five   books   bought. He   all   books-**um**   read
   Raman bought five books. He read all the books

6. Raman anchu pusthakaŋŋaL waaŋŋi.Awan **mik'k'a**pustakaŋŋaL-**um**   waayiccu

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Raman five   books   bought. He   most   books-**um**   read

Raman bought five books. He read most of the books

7. Raman anchu pusthakaŋŋaL waaŋŋi. Awan **pala**   pustakaŋŋaL-**um**   waayiccu

Raman five   books   bought. He   many books-**um**   read

Raman bought five books. He read many of the books

These sentences get a proportionate reading for their quantifier. That is they require an antecedent in their context of utterance. They can be contrasted with the sentences in (8) and (9). These quantifiers do not need an antecedent as in the sentences in (5)-(7).

8. Raman anchu pusthakaŋŋaL waaŋŋi. Awan **cila**   pustakaŋŋaL waayiccu

Raman five   books   bought. He   some books   read

Raman bought five books. He read some books

9. Raman anchu pusthakaŋŋaL waaŋŋi. Awan **kuRe** pustakaŋŋaL waayiccu

Raman five   books   bought. He   many books   read

Raman bought five books. He read many books

Theexamples in (5) – (9) show that the quantifiers having –*um* in their composition get partitive or proportionate reading. Besides, partitive reading requires the domain of quantification to be definite or familiar. It is definite but does not imply uniqueness.

Instead, it is an example of a definite expression which picks up an already introduced discourse referent. For example, consider the sentence in (10).

10. Raman **pala**   pustakaŋŋal-um   waayiccu

Raman many books-**um**   read

Raman read many of the books.'

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This sentence would be true in a world *w* just in case for any situation *s* of Raman's reading which is maximally similar with respect to *w,* Raman read a specific number of entities contained in [book]*w*in *s.* Both occurrences of 'books' will be co-indexed in this example. Moltmann (2006) argues that partitives with strong determiners satisfy the domain presupposition requirement in the following way.

The reason why partitives with a strong determiner are acceptable is obvious: The restriction of the strong determiner clearly is semantically anchored. The definite NP that provides the quantification domain has its own referential force and can be evaluated with respect to the utterance context, that is, *de re*. (p. 213)

Moltmann (2006) argues that the sentence in (11) would be true in a world *w* just in case for any satisfaction situation *s* of John's needs (maximally similar in relevant respect to *w*), John 'has' more than half of the entities contained in [*solution*]*w* in *s*.

11. John needs more than half of the solutions.

This supports our argument that the presence and absence of –*um* in the composition of quantifiers in Malayalam distinguishes the strong and weak quantifiers respectively. The quantifiers with –*um* are partitive and thus they require the restrictor NP which provide the domain of quantification to be definite. Definiteness can disjunctively imply to be referentially unique or to have a discourse referent in the previous context of discourse. The definite expressions in this case are anaphoric and not unique. This follows that their domain is presupposed anaphorically since they have to be co-indexed with their discourse referent which has been introduced prior to the checking of the quantifier in the present index. This means that the quantifier can only be re-identified at the current index. The anaphoric use of definite expressions involves a property from the previous context to satisfy the anchoring condition of domain presupposition. Consider the sentence in (12).

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12. awaLkk   **pala**   uttaraŋŋaL-**um**   aRiyaam

     she-DAT   many   answers-**um**   know

     'she knows many of the answers.'

This sentence gets a truth value only in those situations where its logical presupposition is satisfied, that is, only when it is semantically anchored. It would get a truth value in a world in case for a situation *s* to have her the knowledge of a specific number of entities in [*answers*]*w*in *s.* In isolation this sentence is pragmatically odd and cannot be true or false.

This can be contrasted with a quantifier which does not have *–um* in its composition. Consider the sentence in (13).

13. awaLuDe   tolwik'k'   **pala**   kaaraNaŋŋaL-uNTə

     she-GEN   failure-DAT   many   reasons-COPULA

     'there are many reasons for her failure.'

This sentence can get its truth value if she has failed and if there are enough number of reasons behind it. The reasons need not be evaluated prior to the utterance of this sentence. The sentences in (14) and (15) could be taken as a minimal pair illustrating the difference in meaning and usage of the two quantifiers *–pala*and *pala…-um.*

14. kuTTikaL   awan-ə   **pala**   uttaraŋŋaL   koDUttu

     children   he-DAT   variousanswers   gave

     'the children gave him various/different answers'.

Context: he asked the children some question; (for example; who is your favourie actor?) And the children gave different answers.

15. kuTTikaL   awan-ə   **pala**   uttaraŋŋaL-**um**   koDUttu

     children   he-DAT   many   answers-um   gave

     the children gave him many of the answers'.

Context: he asked the children to choose the right answer from the set of options given. The children gave many of the answers (from the set).

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pala….-um is the proportionate reading of 'many' and *kuRe*the cardinal reading of 'many'. I assume that the proportionate 'many' is a strong quantifier like 'every' and 'most'. *kuRe, cila*and bare *pala*are weak quantifiers.

This account of non-quantifiers with *–um* fits very well with the domain presupposition properties of strong quantifiers as given in Moltmann (2006). So I conclude that the quantifiers which have *–um* in their quantification are in fact strong quantifiers in Malayalam and those who do not have *–um* in their composition are in turn weak quantifiers as they do not require any presupposition like that. One has to note here that domain presupposition is not the same as contextual restriction. It is not as freely available as the latter.

Definite NPs that function as the restriction of quantifiers with *–um* are semantically anchored. They provide the quantification domain and can be evaluated by co-indexing with their discourse referent which has been introduced in the previous context. This is the alternate method of semantic anchoring of domain presupposition available for strong quantifiers. Thus the quantifiers with *–um* do not get their domain evaluated with respect to their utterance context, but rather, they need to have an antecedent which is familiar to the utterance context and be co-indexed with it at the current index.

Quantifiers without *–um* in their composition are not inherently partitive and thus their restriction is not a definite NP. This follows that they do not presuppose the entire domain of quantification, but only a subset of it, the set which contains the proposition in the restriction. There is one question that remains to be addressed now. How do the strong quantifiers get their requirement of domain presupposition satisfied? I will try to address this question presently. Domain presupposition can be satisfied in either of the two ways as discussed in Moltmann (2006):- local accommodation or global accommodation. Consider the sentence in (16).

16. Ramupalaraajaakkanmaare-(y)um kaNT-itt-uNTə

    Ramu many kings-ACC-CONJ saw-PERF-COPULA

    Ramu has met many (of the) kings.

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I assume that partitive reading of 'many' is salient here but in any case it clearly cannot mean something like 'If there are kings in the world Ramu has seen many of them'. Instead the context must comprise worlds where the following propositions are true.

A set of kings exist in the world.

Their existence is thus known to the context of discourse.

This is the background which is required to make sense of the sentence in the example. If no such world is given in the background, the hearer cannot just assume that kings exist in this world and Ramu has seen many of them. That such a background is required for the satisfaction of domain presupposition shows that it has to be globally accommodated. This follows that local accommodation of presupposition is not sufficient for the interpretation of quantifiers such as these. Consider the sentence in (17) from von Fintel (1994).

17. I am sorry I am late, but I was talking to my brother on the phone.

Even if the hearer is not previously informed or aware of the speaker having a brother, he or she would normally assume that he has one and continue with the conversation. This can be considered an example for local accommodation of presupposition. This sentence is perfectly fine with the weak quantifiers in Malayalam, but it is odd for many speakers when used with strong quantifiers such as *pala…-um*. Consider the sentence in (18) and (19) which illustrate this point.

18. war-aanwaikiyat-inəkshamikk-uu. ňaancilasishyar-ooDə

    come-to become late-for forgive-IMP. I some students-to

    samsaarikkuka-(y)aayirunnu

    talk-PROGRESSIVE

    Forgive me for coming late. I was talking to some students of mine.'

19. ??waraanwaikiyat-inəkshamikk-uu.ňaanpala

    come-PART become late-for forgive-IMP. I many

    sishyarooD-umsamsaarikkuka-(y)aayirunnu

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students-to-CONJ talk-PROGRESSIVE

*Forgive me for coming late. I was talking to many of my students.'

These examples show that quantifiers such as *cila*which need not have an *–um* are perfectly fine when their domain of quantification is locally accommodated. Their domain of quantification need not be checked and verified prior to the utterance context. The listener can accommodate the relevant information locally. I argue that this qualifies can be termed as weak quantifiers in the sense of Moltmann (2006). But it is not possible with quantifiers such as *pala…-um, ellaa..-um* and the like which, I call as the strong quantifiers in Malayalam. To conclude, whether or not a quantifier determiner is strong depends on its composition.

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