# A Note on Negation in Tamil

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## Introduction

This paper concerns negative-modal scope interaction in Tamil. Section 1 is a descriptive account of Tamil modals and negative-modal scope interactions. The main aim of this section is to show that both morphological form and semantic properties determine the scope of modals with respect to the negative. Morphology and semantics determine the form of a modal's negative and the syntactic structures in which the modal can appear. In cases where the morphological form of the modal is at odds with its semantic properties, semantics takes priority over form. Section 2 presents my overall conclusions which can be summarized as follows: Potentially odd facts about the lang- uage are shown to have principled explanations. Thus, a close interaction between semantics and morphology and syntax is seen in the discussion of negative-modal scope interaction.

## 1.0  Facts about Tamil Modals

## 1.1  Syntactic and Morphological Facts

All modals in Tamil are morphologically bound forms. This is important because the overt form of the modal influences its scope. There are two classes of modals: those that are bound stems and those that are affixes (here- after Type A and Type B respectively):

1a. naan vele paNN-a muDi-yum (muDi-: Type A)
      I    work do-INF can-POS

      'I can work'
b. avan vele paNN-a-TTum          (-TTum: Type B)
   he    work do-INF-let

**'Let him work'**
Typically, Type A modals (bound stems such as **muDi-**) follow the infinitive form of the verb. They are not morphologically marked for tense and have only two forms, positive and negative. Negative morphemes are always suffix- ed to Type A modals:
2a. nii var-a          veeND-um
    you come-INF    need-POS

   **'You must/have to come'**
b. nii var-a veeND-aam
   you work    need-NEG

   **'You need not come'**
Type B modals are typically suffixed to infinitives. This V + modal combination is also morphologically unmarked for tense:
3. avan poo-xa-laam
   he    go-INF-may

   **'He may go'**
Like Type A modals, Type B modals also have only two forms, positive and negative, but differ in the way negation is indicated. The negative morpheme never affixes to the V+modal form. Instead, the negative form of positive sentences such as (3) are biclausal, with matrix and subordinate verbs, and the negative always attaches to the lower verb and the modal to the matrix verb. The negative morpheme in such cases is always the negative participle:
4. avan poo-xa-aame iru-kka-laam
   he    go-INF-NEG   be-INF-may

   **'He may not go'**

   (Lit. He may remain without going')
So far we have seen the morphosyntactic differences between the two types of modals. Now we turn to see how these facts bear upon:
(i)   scope relation with negation and the square of opposition;
(ii)  lexicalization of the negated forms of the modals.

## 1.2 Scope Relations, the Square of Opposition, and Lexicalization

### 1.2.1 Scope Relations and the Square of Opposition

There are four possible scope combinations of modals ('possible' and 'necessary') with negation. These are shown in (5):

5a. possibility: possibly not (formally: ◇ ~)
           not possibly (formally: ~ ◇)
b. necessarily: necessarily not (formally:□ ~)
           not necessarily (formally:~ □)

These possibilities can be seen in the following sentences from English.

6a. A priest could not marry.
b. You must not go.
c. He need not go.

(6a) has two possible interpretations: 'it is not possible for a priest to marry, (~ ◇) or 'it possible for a priest not to marry' (◇ ~). (6b) has only one interpretation: the strong prohibiton 'you must necessarily not go', (□ ~). (6c) has the opposite interpretation, 'he does not need to go'. (cf. Horn, 1989).

Interestingly, the form of the negative affects the scope relation. Cliticization of the negative to the preceding modal restricts the reading and scope relations.

7. A priest couldn't marry.

(7) can mean only that 'a priest could not possibly marry' (~ ◇). In (7), the negated form of the modal is lexicalized (i.e., the negated modal is a single overt form), and this forces only one reading. Alternatively, if we cannot lexicalize the negated modal due to the intervening material, we get only one reading, the opposite of (7):

8. A priest could always not marry

(Interpretation: A priest could possibly not marry.)

From this discussion we can see that there is a relationship between scope relations and the form of the negated modal. Lexicalization of the negated modal forces us into one reading, and

non-lexicalization gives a different reading[1].
These facts about scope and form become clearer
when we consider the logical structure of the
denotation of the modals and negatives in terms
of the square of opposition. The square of
opposition, first used about eight hundred years
after Aristotle (Horn,1989: chap.1), expresses
the universal structure of logical opposition:

9.　　A ┌─────────────┐ E

　　I └─────────────┘ O

A and I respectively indicate universal and
particular affirmatives: eg., **all** and **some**. E
and O indicate the corresponding negatives:eg.,
**none** and **some not**. The relationship between A
and I and E and O is that of entailment. A/O and
I/E pairs are contradictories; A/E pairs are
contraries; and I/O pairs are subcontraries [2].
The opposition of modals and their negatives can
also be mappped onto this square, with the
resultant scope relations falling out nicely.

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[1]. **Need** does not follow this pattern. For further
discussion of these issues, please refer to Horn 1989.

[2]. Contradictories, as the term itself indicates, refers
to a relation of opposition such that if P is true then 'not P'
must be false and vice versa. With contraries on the other hand,
both P and **not** P may be simultaneously false but cannot be
simultaneously true. Subcontraries (I & O relation) allow both P
and **not** P to be simultaneously true. They are the
contradictories of the contraries, **A** and **E**.