KHMER AND THE THEORY OF MODALITY

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1. INTRODUCTION

In this paper, I will investigate the category of modality in Khmer (Cambodian). Apart from brief discussions in grammars, modality in Khmer has not been analysed adequately yet. For reasons that will become clear, it is of value to any theory that tries to deal with modal phenomena across languages. The aim of this paper is twofold; first, to provide a better description of the Khmer modal system, and second, by contrasting the modal system of Khmer with that of English, to introduce a framework especially designed for cross-linguistic comparisons. It will be called here the continuum model. Even though English and Khmer share a number of similarities, the areas in which the two languages differ is very striking indeed. It will be argued that a model based on a continuum scale, rather than on discrete categories, offers the best basis for cross-linguistic comparisons.

The categories of modality I will be discussing here are the epistemic and deontic categories, following Palmer (1986). Epistemic modality deals with the degree of trust the speaker has in the truth of his or her speech utterance, while deontic modality concerns itself with the notions of necessity, obligation and permission. The latter category has often been called root modality, but I have chosen to use the term deontic modality here, since root modality deals with much more than just obligation, necessity and permission alone, and in this paper I am focusing on just the true deontic features of the modals.

The paper is divided into three main parts. The first part is a theoretical discussion of modality. The data are mainly from English but some data from Dutch have been included for comparison. This section serves as a foundation for the discussion of the Khmer data in the second part and it also argues for the treatment of modal elements as a system, rather than treating the various modal verbs in isolation. The third part of this paper is a discussion of a special area, namely the interaction of modality and negation. It will be shown that English and Khmer, despite their numerous similarities, differ in their treatment of this interaction.

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1 I am grateful to Bernard Comrie, Joan Bybee, John Hawkins, Roger Woodard and Maria Polinsky for commenting on earlier drafts of this paper. Responsibility for this paper is mine alone.

Unless otherwise stated, the Khmer examples are due to my informant, Mr Van So Chau, a native Khmer speaker from the town of Battambang. The Khmer examples are written in a broad phonological transcription. The following abbreviations are used: INF – infinitive; NEG – negation; PAST – past tense; PERF – perfective aspect; Q – question marker; SG – singular.
2. MODALITY IN ENGLISH

It is safe to say that the modal system of English is the best known and best analysed modal system of any language, a fact which has inspired many books and articles. To mention but a few: Boyd and Thorne (1969), Ehrman (1966), Palmer (1990) and Coates (1983). These books and articles have in common the fact that they try to give an account of the English modal system, with an emphasis on the meanings of the individual modal verbs. None of these analyses is therefore really suited for a cross-linguistic comparison of modal systems. The paper by Boyd and Thorne is devoted to a componential analysis of the modals of their particular (British) English dialect. The modals are defined according to their individual meanings. They are not looked at as a system but rather as individual verbs within a semantic field. Their analysis treats epistemic and deontic modals as different verbs and fails to capture the fact that the same modals are used for both epistemic and deontic modality. It is therefore unsuited for cross-linguistic analyses.

Better suited for cross-linguistic comparisons is the matrix model. A matrix is a "...multi-dimensional framework, with each dimension indicating some set of related semantic features" (Palmer 1990:17). The appeal of a matrix is that it is a clear representation of the relation between the individual elements. The elements are presented as being part of a system, which gives us a better overview of the individual relations between the verbs.

According to Palmer (1990:18), Twaddell (1960:11) was the first to analyse the English modals with the help of a matrix. His proposal is shown in Chart 1 below:

<table>
<thead>
<tr>
<th></th>
<th>Prediction</th>
<th>Possibility, capability, permission</th>
<th>Necessity, requirement, prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute, unrestricted</td>
<td>will</td>
<td>can</td>
<td>must</td>
</tr>
<tr>
<td>Contingent, inconclusive</td>
<td>shall</td>
<td>may</td>
<td>need</td>
</tr>
<tr>
<td>Morally determined</td>
<td>dare</td>
<td></td>
<td>ought</td>
</tr>
</tbody>
</table>

CHART 1: MATRIX ANALYSIS OF ENGLISH MODALS (TWADDELL 1960:11)

Problems with this particular analysis are obvious. It is hard to see the difference between 'unrestricted' and 'inconclusive'. Furthermore, the distinction between must and need is not clear from the matrix. The difference does not seem to be one of 'unrestricted' versus 'inconclusive'. The same considerations hold for can versus may. Lastly, the verbs dare and ought are too different to include them into one 'morally determined' category. In addition, the difference between these two verbs is not one of possibility versus necessity.

The difficulty with a matrix analysis is to decide what kind of semantic features to use. In the analysis cited above, one dimension is concerned with the relative strength of the modals: possibility versus necessity. It is not clear, however, how the notion 'prediction' fits into this scheme. It is no logical part of the opposition weak versus strong modality. For reasons such

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as these, the specific analysis of Twaddell's cannot be maintained. Of course this does not mean that there is something inherently wrong with matrix analyses. Twaddell's analysis merely shows that it is difficult to come up with the right labels for each category.

Palmer (1990:37) takes a different approach. He combines epistemic, deontic and dynamic modality into a matrix. This is shown in Chart 2:

<table>
<thead>
<tr>
<th></th>
<th>Epistemic</th>
<th>Deontic</th>
<th>Dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility</td>
<td>may</td>
<td>may/can</td>
<td>can</td>
</tr>
<tr>
<td>Necessity</td>
<td>must</td>
<td>must</td>
<td></td>
</tr>
<tr>
<td>?</td>
<td>will</td>
<td>shall</td>
<td>will</td>
</tr>
</tbody>
</table>

CHART 2: MATRIX ANALYSIS OF ENGLISH MODALS (PALMER 1990:37)

If we compare Palmer's matrix with that of Twaddell, it is easy to see that Palmer's matrix is simpler and more appealing intuitively. His big problem is the category indicated by a question mark. Palmer is forced to include this category because of sentences such as those shown in (1a) and (1b), from Palmer (1990:36,37):

(1) a. John will be in his office.
     b. You shall have your reward tomorrow.

Palmer is unable to group will and shall with either possibility or necessity and is therefore forced to set up a third category, but he is at a loss as to what this category should be called. In fact, it seems to me that there is no clear correspondence between epistemic will and deontic shall and that grouping them into one category is not justified. There is no semantic category close enough to 'possibility' and 'necessity' that modal will and shall have in common.

Other problems with the matrix analysis are more severe. For instance, what is the place of the verb should (or ought to) in a matrix? Palmer does not include them in his matrix, and indeed it would be hard to do so, since these verbs occupy a place somewhere between possibility and necessity. It would seem that we could simply add a row of cells to the matrix to incorporate this new category, as seen in Chart 3:

<table>
<thead>
<tr>
<th></th>
<th>Epistemic</th>
<th>Deontic</th>
<th>Dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility</td>
<td>may</td>
<td>may/can</td>
<td>can</td>
</tr>
<tr>
<td>??</td>
<td>should/ought to</td>
<td>should/ought to</td>
<td></td>
</tr>
<tr>
<td>Necessity</td>
<td>must</td>
<td>must</td>
<td></td>
</tr>
<tr>
<td>?</td>
<td>will</td>
<td>shall</td>
<td>will</td>
</tr>
</tbody>
</table>

CHART 3: MATRIX ANALYSIS OF ENGLISH MODALS, REVISED

This approach has two drawbacks. First, one has to give this new category a meaningful name. More serious is the fact that the matrix becomes too full to give an adequate description

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3 In this respect it must be mentioned that in a subsequent edition of his book, published in 1963, Twaddell drops this analysis without any explanation.
of the modal system. The logical simplicity of the original has disappeared, since the vertical dimension of the system is now full of incoherent categories.

The new matrix shown in Chart 3 has created new problems for cross-linguistic comparisons. We now have a matrix with four rows and three columns, but in other languages not all cells might be filled, or some languages might make even finer distinctions within their grammaticalised modal system. A matrix model is too rigid to take this into account. Consider the case of Dutch, for instance. Dutch has no verb comparable to English *should*. Instead, various forms of the verb *moeten* ‘must’ are used. Normally, *moeten* denotes strong modality (epistemic and deontic), but in certain contexts it is weakened. In sentence (2a) below we see the subjunctive of *moeten*, which denotes a weakened obligation. In (2b) the past perfect tense of *moeten* is used to denote (unrealised) obligation in the past.

(2) a. *Hij zou naar Amsterdam moeten gaan.*
   he shall.3SG.PAST to Amsterdam must.INF go.INF
   He should go to Amsterdam.

b. *Hij had naar Amsterdam moeten gaan.*
   he have.3SG.PAST to Amsterdam must.INF go.INF
   He should have gone to Amsterdam.

The question is: how do we represent the Dutch system by means of a matrix, such as the one in Chart 3? Basically, we have two options available to us. The first is to disregard the use of *moeten* as weakened obligation and leave the corresponding row in the matrix empty. The justification would be that there is no separate verb available in Dutch that corresponds to English *should*. However, this would create the (utterly false) impression that Dutch lacks a way to express the meaning of weakened obligation.

The second option is to fill the appropriate row of the matrix with the combinations *zou moeten* and *had moeten*, in order to show that those are the corresponding Dutch elements. This would be justified if the matrix were one of meaning instead of being one of forms. If the matrix were designed to deal with meaning, many more elements would need to be added, such as modal adverbs, modal particles and modal paraphrases. Furthermore, we would be missing a generalisation, since the verb *moeten* is used twice, on two different levels. In the matrix model, this can be seen only as an accident, since there is no inherent connection between individual cells.

To sum up this section, a matrix model is more useful for cross-linguistic comparisons than any of the other frameworks we have examined, but it suffers from some drawbacks. The most serious one is its rigidity: discrete cells are used to reflect different verbs and different meanings. There is not always a one-to-one correspondence between meaning (represented by cells) and form (represented by verbs). To overcome these problems, we should look for a ‘matrix without cells’.

In this paper, I will adopt an analysis of modals that will be called here the *continuum* analysis. It has some affinity with so-called scalar models, as developed in Horn (1972) and in use in, for instance, the theory of Functional Grammar (Hengeveld 1987, Siewierska 1991). Like scalar models, the continuum model relies on the fact that there is a gradual difference in intensity among certain modals. For instance in English, the modal *must* is stronger in intensity than the modal *may*. I will argue that the difference between these modals can be best expressed by means of a continuum model, shown in Chart 4: