CLAUSES AND CASES IN ENGLISH AND SOUTHEAST ASIAN LANGUAGES
(BURMESE, CAMBODIAN, CANTONESE, LAO, THAI, AND VIETNAMESE)
IN CONTRAST

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0. Introduction
1. Clause Units in the Languages
2. Clause Units in Contrast
3. Deep versus Surface Structures
4. Philosophy of Approach

0. INTRODUCTION

For over a generation, the conviction that the best language-teaching materials are based upon a contrastive analysis of the language to be learned and the language of the learner has been predominant in foreign language teaching. Allied with the conviction was the hypothesis on language learning which assumed that the new linguistic system, and by extension the whole new cultural behaviour, should be established as a set of new habits by drill, drill, and drill which would ensure over-learning. Such a pedagogical philosophy was systematised mainly by Charles C. Fries (1945) and Robert Lado (1957).

However, all this firm belief in contrastive analysis seems to be in the past, at least for some people. The generative-transformational theory, which was born in 1957 with Noam Chomsky's *Syntactic Structures*, claims that language behaviour is rule-governed creative behaviour, and consequently, language learning should be in the form of a process of internalising the creative rules in the new language, and not just that
of mere habit forming. The theory is concerned not only with the actual utterances, the surface structures of a language, but even more so with meaning, the deep structure of universal language, and with the various transformational rules that map the deep structure denominations that are common to all languages to the surface structure realisations that are specific to particular languages. It explores not only the performance, but also the competence of language speakers (Chomsky 1965:3).

Before such a theoretical conflict, a language teacher may be tempted to make the most use of existing linguistic techniques to improve teaching materials as much as he can. While he may not be absolutely positive about the total efficiency of applied linguistics, he is likely to believe that surface structure is as important as deep structure in foreign language learning, for he constantly observes interference (Weinreich 1953:3) in situations of languages in contact.

With pragmatism in mind, I am trying to make use of various linguistic techniques in this contrastive analysis of English and Southeast Asian languages in this paper. Firstly, a surface structure presentation of clause units in each language will be given in tagmemic formulas (Pike 1954, 1955, 1960, Longacre 1964, Liem 1966, 1967, 1969, and 1970a, and Cook 1969) and two-dimensional matrix systems (Ray 1967). Secondly, a contrastive analysis will point out the surface structure differences between English on the one hand, and the Southeast Asian languages on the other. Thirdly, an attempt will be made to decide the deep structures of the surface structure differences found in 2. Finally, I shall conclude that contrastive analysis will continue to play a major role in language teaching and in area linguistics.

1. CLAUSE UNITS IN THE LANGUAGES

The tagmemic model utilised here was developed by Pike, and improved by his followers and himself (Young, Becker, and Pike 1970, and Cook 1971). It views language as hierarchically ordered. The clause hierarchy is in between the sentence and the phrase hierarchies. This paper presents an analysis of clauses because, as Longacre puts it: "In essence, the clause posits a situation in miniature (whether asserting, questioning, commanding, or equating" (1964:35). The clause tagmeme includes one or more phrase-level tagmemes, each of which has a functional slot and a filler class, and may be nuclear (i.e. essential to the clause) or satellite, obligatory or optional. This analysis will present only the minimal formulas of clauses, and will only present the functional slots in the clauses and not the filler classes of these
SUMMARY TABLE I
THE 87 CLAUSE UNITS IN ENGLISH

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|   | Dependent                        |                    |      |       |     |     |     |     |     |     |     |     |     |
|   | Without an Extra Dependent tagmeme | Dependent Subject | 9    | *    | *   | *   | *   | *   | *   | *   | *   | *   | +   |
|   |                                 | Dependent Non-Subject | 10   | *    | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|   | With an Extra Dependent tagmeme  | Relative Dependent | 11   | *    | *   | *   | *   | *   | *   | *   | *   | *   | +   |
|   |                                 | Extra Dependent     | 12   | *    | *   | *   | *   | *   | *   | *   | *   | *   | +   |

The ten Clause Classes

The ten Clause Types

1.1. ENGLISH

There are 87 Clause Units in English, which are cast in a two-dimensional field: the Clause Class Dimension, and the Clause Type

*It is noted that the transcriptions of data in this paper are as close to phonemic transcriptions for Burmese, Cambodian, and Thai-Lao as practically acceptable to researchers in the languages, or follow the most commonly accepted transcriptions which may not be phonemic as it is for Cantonese. English and Vietnamese examples are recorded in current spelling systems of the languages. Phrase-level analyses are given only when pertinent, they occur mostly in Burmese. The author is deeply indebted to Arthur Crisfield, Thomas W. Gething, Philip N. Jenner, Julia C. Kwan, and D. Haigh Roop for their valuable data and enlightening insights into Lao, Thai, Cambodian, Cantonese, and Burmese respectively, and is without saying responsible for all the descriptive inadequacies found in this paper.
Dimension. The Clause Type Dimension is subdivided, under four levels of consideration, into ten Clause Types. The Clause Class Dimension is subdivided, under four levels of consideration, into ten Clause Classes. The total field contains one hundred possible Clause Units, but only 87 of them are grammatical and acceptable in English.

1.1.1. Clause Types in English

The minimal formulas of the ten Independent Declarative Clause Units in English are as follows:

E.a1. Intransitive  [+S  +Pr]
   He  went.

E.a2. Transitive  [+S  +Pr  +O]
   He  bought a book.

E.a3. Double Transitive  [S  +Pr  +IO +O]
   He  gave her a book.

E.a4. Attributive Transitive  [S  +Pr  +O  +AtCompl]
   They elected him chairman.

E.a5. Passive  [S  +PassPr  +A]
   It was bought by him.

   She was given a book (by him).
   It was given to her (by him).

E.a7. Attributive Passive  [S  +PasPr  +AtCompl  +A]
   He was elected chairman (by them).

E.a8. Equational  [S  +EqPr  +EqCompl]
   He is a student.
   He is intelligent.

E.a9. 'there'  [there  +StPr  +StS]
   There were two people.

E.a10. 'it' Stative  [it  +StPr  +StCompl]
   It was the boys.

1.1.2. Clause Classes in English

The minimal nuclear formulas of the remaining nine derived Clause Classes in English are as follows:
1.2. BURMESE

There are 75 Clause Units in Burmese. They are cast in a two-dimensional field: the Clause Type Dimension, and the Clause Class Dimension. The Clause Type dimension is subdivided, under four levels of consideration, into seven Clause Types. The Clause Class dimension is subdivided, under three levels of consideration, into twelve Clause Classes. The total field contains 84 possible Clause Units, but only 75 of them are grammatical and acceptable in Burmese.
### SUMMARY TABLE II

**THE 75 CLAUSE UNITS IN BURMESE**

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</table>

#### The twelve Clause Classes

#### The seven Clause Types

1.2.1. **Clause Types in Burmese**

The minimal formulas of the seven Independent Declarative Clause Units in Burmese are as follows:

**B.a1. Intransitive** \([\#S +Pr]\)

\[
\text{thu thwa:de} \quad \text{he go-actual} \\
\text{He went.}
\]

\(-te/-\) is an obligatory particle indicating a statement of fact. It is one of a group of particles which mark a verb phrase as independent.

**B.a2. Transitive** \([\#S \pm O +Pr]\)

\[
\text{thu sa-qou' we-de} \quad \text{he book buy-actual} \\
\text{He bought a book.}
\]
B.a3. Double Transitive \([\{\pm S \pm IO \ O \pm Pr\}\]

\[
\text{thu gou sa-qou' pei:de he-goal book give-actual}
\]

Someone gave him a book.

The particle /-kou/ marks 'object, goal (time, place, person, etc.)'. It appears optionally with DO, and certain expressions of time to come (i.e. /nau'kou/ 'later on'. It is normally, though not always, present with expressions of place to which, and with IO if a DO is also present - it is entirely optional if the DO is not present. The order /...sa-qou' thu.gou.../ is also possible.

B.a4. Attributive Transitive \([\{\pm S \pm G \ +At\ Compl \ +Pr\}\]

\[
\text{thu.gou nain-ghan-qou' ywei: kau'te he-goal nation-leader elect-actual}
\]

(They) elected him president.

B.a5. Equational \([\{\pm S \ +Eq\Compl \ \pm EqPr\}\]

\[
\text{thu caun:dha:be: he student-emphatic}
\]

He is a student.

/-hpe:/ is a particle marking emphasis. In a short equation like this, the Burman feels the sentence to be incomplete without some such particle present. In longer equations such "fillers" are optional.

The negative of non-verbal equations requires the verb /hou'/ 'to be so', i.e. /thu caun:dha: maou'hpu:/ (he student not-so) 'he isn't a student'. /ma=...hpu:/ is the standard negative statement particle combination.

B.a6. Adjective \([\{\pm S \ +AdjPr\}\]

\[
\text{thu kaun:de he good-actual}
\]

He is good (i.e. a good person).

B.a7. Stative \([+St\Compl \ +hyi.Pr]\]

\[
\text{caun:dha hnyau' hyi.de student two-individual have-actual}
\]

There are two students.

1.2.2. Clause Classes in Burmese

The minimal nuclear formulas of the eleven derived Clause Classes in Burmese are as follows:
B.b. Imperative [+ImpPr ±PoliteFormula]

thwa: Go!
thwa:ba Please go!
thwa:ba-qoun: Please go then!

/thwa:/ 'Go!', i.e. the base form of the verb, is imperative. The bald verb, however, is impolite. In most situations it is softened with /-pa/ 'politeness, respect' and often still further with /-qoun:/ 'further, yet'.

B.c. Yes-No Interrogative [+S +InterPr]

hkin-bya: thwa:dhala: you go-actual-question
Are you going?

The particle /-la:/ is attached to statements to make yes-no questions. /tha/ is the allomorph of /te/ before /la:/.

B.d. Echo Interrogative [+DeclCl +EchoInter]

hkin-bya: thwa:de, mahou'hpu:la: you go-actual, not-so-question
You are going, aren't you?

In contrast to the other Southeast Asian languages in consideration, such as in Thai /châj máj/, which is positive, Burmese here uses the negative like English.

B.e. Subject Interrogative [+InterS +Pr]

badhu thwa:dhale: who goes-actual-question
Who goes?

/le:/ is the allomorph of /-la:/ 'question' which occurs in sentences with the interrogative nouns /ba/ 'what', /be/ 'which' and their derivatives.

B.f. Non-Subject Interrogative [+S ±O +InterG +InterPr]

↑

thu ba we-dhale: he what buy-actual-question
What does he buy?

thu sa-qou' badhu.gou pei:dhale: he book who-goal give-actual-question
Who did he give the book to?

The order /...badhu.gou sa-qou'.../ is also possible.

B.g. Extra Interrogative [+S +XInter[Subordinate Clause] +InterPr]

thu be-gou thwa:dhale: he where-goal go-actual-question
Where did he go?
thu ba hpyi'lou. thwa:dhale:
    he what happen-result go-actual-question
    Why did he go?

'why' is expressed in Burmese with a subordinate clause - here em-
bedded in the sentence /thu thwa:de/ 'he went' - /ba hpyi'lou./
literally 'as a result of what happening'. Note that the presence
of /ba/ even in a subordinate clause calls for the /-le:/ allo-
morph of the question particle after the main verb.

B.h. Subject Dependent [+NominalisedDepCl[+InterS...]]
badhu thwa:hman: thi.de who go-matter know-actual
    I know who went.

badhu thwa:de hsou-da thi.de
    who go-actual speak-actual nominaliser know-
        actual
    I know who went.

/-ta/ or /-hta/ is a verb nominaliser (corresponding to the
actuality particle /-te/ which forms action nouns from verbs.
The first sentence thus means something like 'I know whose going'.
In both examples, the object of /thi./ 'know' must be a noun of
some sort.
Note also that the first clause in the second example occurs in
statement form despite the presence of the question noun /ba/
'what'.

B.i. Non-Subject Dependent [+NominalisedDepCl[+InterNonS]]
thu ba we-de hsou-da thi.de
    he what buy-actual speak-actual=nominaliser
        know actual
    I know what he bought.

thu ba we-hman: thi.de
    he what buy-matter know-actual
    I know what he bought.

B.j. Relative Dependent [+NominalisedDepCl]
thu thwa:da thi.de
    he go-actual=nominaliser know-actual
    I know he went.

thu thwa:de hsou-da thi.de
    he go-actual speak-actual=nominaliser know-
        actual
    I know he went.

In the second example, the clause /thu thwa:de/ 'he went' is
complement of the verb /hsou/ 'speak'; this whole construction is
then nominalised with /-ta/ and acts as object of /thi./ 'know'.
The whole means something more like 'Speaking of his going, I know (it)'.

B.k. Extra Dependent  [+NominalisedExtraDepCl]

thu be-gou thwa:de hsou-da thi.de
he where-goal go-actual speak-actual=
nominaliser know-actual
I know where he went.

thu be-gou thwa:hman: thi.de
he where-goal go-matter know-actual
I know he went.

B.1. Topical Dependent  [+TopicalisedDepCl]

thu thwa:yin, kaun:me  he go-if, good-potential
It would be good if he went.

where the subordinate clause - lacking a particle of the class of
/-te/, but marked with a subordinating particle /-yin/ 'if' -
precedes the main clause which ends with the particle /-me/ 'pos-
sibility, potential'; /-me/ is the same class of particle as
/-te/.

1.3. CAMBODIAN

There are 74 Clause Units in Cambodian. They are cast in a two-
dimensional field: the Clause Class Dimension, and the Clause Type
Dimension. The Clause Type Dimension is subdivided, under four levels
of consideration, into eight Clause Types. The Clause Class Dimension
is subdivided, under three levels of consideration, into eleven Clause
Classes. The total field contains 88 possible Clause Units, but only
74 of them are grammatical and acceptable in Cambodian.

1.3.1. Clause Types in Cambodian

The minimal formulas of the eight Independent Declarative Clause
Units in Cambodian are as follows:

C.a1. Intransitive  [+S +Pr]
koet teöw  He went.

C.a2. Transitive  [+S +Pr +O]
koet tyn slieawphéaw (múej) He bought a book. múej 'one'
C.a3. Double Transitive \([\pm S \ +Pr \ \pm O \ +IO]\)
koet jook sǐe̱wphéaw qaaqj nịaŋ
he take book give her
koet cuun sǐe̱wphéaw mook nịaŋ
he offer book come her
(He gave her a book.)

C.a4. Attributive Transitive \([\pm S \ +Pr \ \pm O \ +AtCompl]\)
kée râeh koet cília prathfähig
They elected him chairman.
cília 'to be'

C.a5. Submissive \([\pm S \ +SubmPr \ +SubCompl]\)
koet ttúuel tuk kée wtiâj koet
He was beaten by them.
ttúuel 'receive'
tuk 'pain'

C.a6. Equational \([\pm S \ +EqPr \ +EqCompl]\)
koet cília kòn sâh
He is a student.

C.a7. Adjective \([\pm S \ +AdjPr]\)
koet claat
He is intelligent.

C.a8. Stative \([+mịaŋPr \ +StCompl]\)
mịaŋ kòn sâh pilr neek
There were two people.
neek 'person' = classifier

1.3.2. Clause Classes in Cambodian

The minimal nuclear formulas of the ten derived Clause Classes in
Cambodian are as follows:

C.b. Imperative \([\pm Polite\ Formula \ +Pr]\)
kham têaw
Please come.
kham 'try'

C.c. Alternative Interrogative \([+DeclCl \ +AlternInterPhrase]\)
qaaqj têaw rîy nêaw
Are you going or staying?

C.d. Yes-No Interrogative \([+DeclCl \ +YesNoInterPhrase]\)
qaaqj têaw (rîy) têe
Are you going?
qaaqj têaw rîy
rîy 'or'
têe 'no, not'

C.e. Subject Interrogative \([+InterS \ +Pr]\)
neek naa têaw
Who goes?
### SUMMARY TABLE III
THE 76 CLAUSE UNITS IN CAMBODIAN

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<th>I</th>
<th>II</th>
<th>III</th>
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</table>

#### The eleven Clause Classes

#### The eight Clause Types

The table above is a summary of the 76 clause units in Cambodian, organized into independent and dependent categories, with further breakdowns into various clause classes and types. Each entry is classified with a number indicating its presence in the set of clause types.

**C.f.** Non-Subject Interrogative [±S +Pr +NonSInter]

koat tōw (tii) naa (qəajwan naa)  What did he buy?
qəajwan 'wares, goods`

**C.g.** Extra Interrogative [±S +Pr +XInter]

koat tōw (tii) naa  Where did he go?
tii 'place'

**C.h.** Subject Dependent  [+InterS +Pr]

(knom dỳŋ) nek naa tōw haaaj  I know what person went.
(knom dỳŋ) nek dāael tōw haaaj  I know the person who went.

**C.i.** Non-Subject Dependent [±S +Pr +InterNonS]

(knom dỳŋ) koat tōw naa  I know what he bought.

**C.j.** Relative Dependent  [+RelDepIntroducer +DeclICl]

(knom dỳŋ) thaa koat tōw haaaj  I know that he went.
C.k. Extra Dependent \[ [+S \ +Pr \ +XDepIntroducer] \]

\[ (\text{knom dýŋ} \ \text{koæt t̄ōw} \ \text{(tii)} \ \text{naa} \ \text{I know where he went.}) \]
\[ (\text{knom dýŋ} \ \text{tii} \ \text{naa} \ \text{koæt t̄ōw}) \]

1.4. CANTONESE

There are 81 Clause Units in Cantonese. They are cast in a two-dimensional field: the Clause Type Dimension, and the Clause Class Dimension. The Clause Type Dimension is subdivided, under four levels of consideration, into eight Clause Types. The Clause Class Dimension is subdivided, under three levels of consideration, into twelve Clause Classes. The total field contains 96 possible Clause Units, but only 81 of them are grammatical and acceptable in Cantonese.

1.4.1. Clause Types in Cantonese

The minimal formulas of the eight Independent Declarative Clause Units in Cantonese are as follows:

\[ \text{Ct.a1. Intransitive} \quad [+S \ +Pr] \]
\[ \text{keúih keuí} \quad \text{He went.} \]

\[ \text{Ct.a2. Transitive} \quad [+S \ +Pr \ +O] \]
\[ \text{keúih maaí syǔ} \quad \text{He bought a book.} \]

\[ \text{Ct.a3. Double Transitive} \quad [+S \ +Pr \ +IO \ +O] \]
\[ \text{keúih bêí keúih syǔ} \quad \text{He gave her a book.} \]
\[ \text{keúih bêí syǔ keúih} \]

\[ \text{Ct.a4. Attributive Transitive} \quad [+S \ +Pr \ +O \ +AtCompl] \]
\[ \text{keúih-deih syún keúih jowh jyú-jihk} \quad \text{They elected him chairman.} \]
\[ \text{jowh 'to be'} \]

\[ \text{Ct.a5. Submissive} \quad [+S \ +SubmPr \ +SubmCompl] \]
\[ \text{keúih bêí keúih-deih dâ} \quad \text{He was beaten by them.} \]
\[ \text{bêí 'undergo a bad experience'} \]

\[ \text{Ct.a6. Equational} \quad [+S \ +EqPr \ +EqCompl] \]
\[ \text{keúih haîh honk-saâng} \quad \text{He is a student.} \]

\[ \text{Ct.a7. Adjective} \quad [+S \ +AdjPr] \]
\[ \text{keúih chûng-míŋ} \quad \text{He is intelligent.} \]
1.4.2. Clause Classes in Cantonese

The minimal nuclear formulas of the eleven derived Clause Classes in Cantonese are as follows:

**Ct.b. Imperative**  
[+Pr +ImpPhrase]
heui là  
*Go!*

**Ct.c. Alternative Interrogative**  
[+DeclCl +AlterPhrase +DeclCl]
néi heui yikwaahk mheui a  
*Are you going or staying?*
yikwaahk 'or'  
m 'not'
1.5. LAO AND THAI

Lao and Thai are closely related and have the same Clause Units. There are 92 Clause Units in either Lao or Thai. The Clause Units are cast in a two-dimensional field: the Clause Type Dimension, and the Clause Class Dimension. The Clause Type Dimension is subdivided, under four levels of consideration, into eight Clause Types. The Clause Class Dimension is subdivided, under three levels of consideration, into thirteen Clause Classes. The total field contains 104 possible Clause Units, but only 92 are grammatical and acceptable in either Lao or Thai.
1.5.1. Clause Types in Lao and Thai

The minimal formulas of the eight Independent Declarative Clause Units in Lao and Thai are as follows, with the first examples in Lao, and the second examples in Thai:

LT.a1. Intransitive \([\pm S +Pr]\)

\[
\begin{align*}
\text{læw pæj} & \quad \text{He went.} \\
\text{khăw pæj} &
\end{align*}
\]

LT.a2. Transitive \([\pm S +Pr \pm O]\)

\[
\begin{align*}
\text{læw (dâj) sỳ y pỳm} & \quad \text{He bought a book.} \\
\text{khăw sỳ y nănỳỳ} &
\end{align*}
\]

LT.a3. Double Transitive \([\pm S +Pr \pm O +IO]\)

\[
\begin{align*}
\text{læw aw pỳm hâj læw} & \quad \text{He gave her a book.} \\
\text{khăw aw nănỳỳ hâj khăw} &
\end{align*}
\]

LT.a4. Attributive Transitive \([\pm S +Pr \pm O +AtCompl]\)

\[
\begin{align*}
\text{khacâw (dâj) lyâk læw (pen) hŭa-nàa pasùm} & \quad \text{They elected him chairman.} \\
\text{khăw lyâk khăw pen hŭa-nàa} &
\end{align*}
\]

LT.a5. Submissive \([\pm S +SubmPr +SubmCompl]\)

\[
\begin{align*}
\text{læw thỳýk khacâw tìi} & \quad \text{He was beaten by them.} \\
\text{khăw thùūk khăw tìi} &
\end{align*}
\]

LT.a6. Equational \([\pm S +EqPr +EqCompl]\)

\[
\begin{align*}
\text{læw pen năk-hián} & \quad \text{He is a student.} \\
\text{khăw pen năk-rián} &
\end{align*}
\]

LT.a7. Adjective \([\pm S +AdjPr]\)

\[
\begin{align*}
\text{læw kĕŋ} & \quad \text{He is intelligent.} \\
\text{khăw kĕŋ} &
\end{align*}
\]

LT.a8. Stative \([+m1Pr +StCompl]\)

\[
\begin{align*}
\text{mî m1 năk-hián sŏng khûn} & \quad \text{There are two students.} \\
\text{mî m1 năk-rián sŏng khôn} &
\end{align*}
\]

1.5.2. Clause Classes in Lao and Thai

The minimal nuclear formulas of the twelve derived Clause Classes in Lao and Thai are as follows:
LT.b. Imperative [+ImpPr...]
paj Go!
paj

LT.c. Alternative Interrogative [+DeclCl +AlterPhrase +DeclCl]
cāw si paj lỳỳ si jūū Are you going or staying?
khun cā paj rỳỳ (phāk)

LT.d. Yes-No Interrogative [+DeclCl +YesNoInter]
cāw si paj bō Are you going?
khun cā paj māj

LT.e. Right-Wrong Interrogative [+DeclCl +RWInter]
cāw si paj mēēn bō You are going, aren't you?
khun cā paj chāj māj

LT.f. Realisation-Nonrealisation [DeclCl +RnonRInter]
Interrogative
cāw (dāj) paj lēēw lỳỳ pān Have you gone yet?
khuń (dāj) paj rỳỳ jāŋ

LT.g. Subject Interrogative [+InterS +Pr]
phāj paj (mēēn phāj paj) Who went?
khraj paj

LT.h. Non-Subject Interrogative [#S +Pr +NonSInter]
lōāw (dāj) sỳỳ pān What did he buy?
khwāw (dāj) sỳỳ ?araj

LT.i. Extra Interrogative [#S +Pr +XInter]
lōāw (dāj) paj sāj Where did he go?
khwāw (dāj) paj nāj

LT.j. Subject Dependent [+DepIntroducer +DepS +Pr]
(khōj) huā wāā mēēn phāj paj I know who went.
(rū) wāā khraj paj

LT.k. Non-Subject Dependent [+DepIntroducer #S +Pr +NonSDep]
(khōj) huā wāā lōāw (dāj) sỳỳ pān I know what he bought.
(rū) wāā khwāw sỳỳ ?araj
LT.1. Relative Dependent [+RelDepIntroducer +DeclCl]
(khơj hủu) wāa laāw (dâj) paj I know that he went.
(rủu) wāa khăw paj

LT.m. Extra Dependent [+DepIntroducer ±S +Pr +XDep]
(khơj hủu) wāa laāw (dâj) paj sâj I know where he went.
(rủu) wāa khăw paj thì näj

SUMMARY TABLE V
THE 92 CLAUSE UNITS IN LAO OR THAI

| I | II | III | No. | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|---|----|-----|-----|----|----|----|----|----|----|----|
| Independent | Non-Interrogative | Declarative | a | +  | +  | +  | +  | +  | +  | +  |
| | | Imperative | b | +  | +  | +  | +  |
| | | Alternative | c | +  | +  | +  | +  | +  | +  | +  |
| | | Yes-No | d | +  | +  | +  | +  | +  | +  | +  |
| | | Right-Wrong | e | +  | +  | +  | +  | +  |
| | | Realisation-Non-Realisation | f | +  | +  | +  | +  | +  |
| | Subject | g | +  | +  | +  | +  | +  |
| | Non-Subject | h | +  | +  | +  |
| | Extra | i | +  | +  | +  | +  | +  | +  | +  | +  |
| Dependent | Subject | j | +  | +  | +  | +  | +  |
| | Non-Subject | k | +  | +  | +  |
| | Relative | l | +  | +  | +  | +  | +  |
| | Extra | m | +  | +  | +  | +  | +  | +  | +  | +  |

The thirteen Clause Classes
The eight Clause Types

1.6. VIETNAMESE

There are 108 Clause Units in Vietnamese, which are cast in a two-dimensional field: the Clause Type Dimension, and the Clause Class Dimension. The Clause Type Dimension is subdivided, under four levels of consideration, into nine Clause Types. The Clause Class Dimension is
subdivided, under five levels of consideration, into thirteen Clause Classes. The total field contains 117 possible Clause Units, but only 108 of them are grammatical and acceptable in Vietnamese.

1.6.1. Clause Types in Vietnamese

The minimal formulas of the nine Independent Declarative Clause Units in Vietnamese are as follows:

V.a1. Intransitive
   No đi.
   [±S +Pr]
   He went.

V.a2. Transitive
   No mua sách.
   [±S +Pr ±O]
   He bought books.

V.a3. Double Transitive
   No cho họ sách.
   [±S +Pr +IO ±O]
   He gave them books.

V.a4. Attributive Transitive
   No làm họ sợ.
   [±S +Pr ±O +AtCompl]
   He made them afraid.

V.a5. Actional Submissive
   No bị đi.
   [±S +SubmPr +SubmActlCompl]
   He had (was forced) to go.

V.a6. Passive Submissive
   No bị (họ) rày.
   [±S +SubmPr +SubmPasCompl]
   He was reprimanded (by them).

V.a7. Equational
   Họ là sinh viên.
   [±S +EqPr +EqCompl]
   They are students.

V.a8. Adjective
   Họ giàu.
   [±S +AdjPr]
   They are rich.

V.a9. Stative
   Có hai người.
   [±coPr +StCompl]
   There were two people.

1.6.2. Clause Classes in Vietnamese

The minimal nuclear formulas of the twelve derived Clause Classes are as follows:

V.b. Imperative
    Ông hãy đi.
    [±S +ImpPr...]
    Go! (Mr had better go.)

V.c. Alternative Interrogative
    Ông đi hay (ông) ở?
    [±DeclCl +AlterPhrase +DeclCl]
    Are you going or staying?
### SUMMARY TABLE VI

**THE 108 CLAUSE UNITS IN VIETNAMESE**

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>No. 1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>+</td>
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</tr>
</tbody>
</table>

### The thirteen Clause Classes

The nine Clause Types

- **V.d. Yes-No Interrogative**
  - Ông đi (hay) không?
  - +[DeclCl] +[YesNoInter]
  - Are you going?

- **V.e. Right-Wrong Interrogative**
  - Ông đi phải không?
  - +[DeclCl] +[RWInter]
  - You went, didn't you?

- **V.f. Realisation-Non-realisation Interrogative**
  - Ông đi chưa?
  - +[DeclCl] +[RnonRInter]
  - Did you go?
V.g. Subject Interrogative
Al di?

V.h. Non-Subject Interrogative
Nó mua gì?

V.i. Extra Interrogative
Nó đi hỏi nào?

V.j. Subject Dependent
...(mà) di...

V.k. Non-Subject Dependent
...(mà) nó mua...

V.l. Relative Dependent
...(ràng) nó đi...

V.m. Extra Dependent
Khi nó đi...

[+InterS +Pr...]
Who went?

[±S +Pr +InterNonS]
What did he buy?

[±S +Pr... +XInter]
When did he go?

[±DepS +Pr...]
...that went...

[±DepNonS ±S +Pr...]
...(that) he bought...

[+RelDepIntroducer +DeclCl]
...(that) he went...

[+XDepIntroducer +DeclCl]
When he went...

2. CLAUSE UNITS IN CONTRAST

Since the Clause Units in the languages are cast in a two-dimensional field (the Clause Type Dimension, and the Clause Class Dimension), a contrastive analysis of the units can also be presented bi-dimensionally.

2.1. CLAUSE TYPES IN CONTRAST

On the Clause Type Dimension, the following differences between English and the Southeast Asian languages under consideration can be noticed from a comparison of the charts and formulas:

(1) In English, the Subject, and the Object tagmemes are nuclear and obligatory. In the Southeast Asian languages, the same tagmemes are also nuclear but they are optional in the sense that they can be omitted when the context permits it.

(2) Only English has passive transitive constructions such as E.a5, E.a6, and E.a7.

(3) Except Burmese, all the other SEA languages have a submissive construction such as C.a6, Ct.a5, LT.a5. Vietnamese has two submissive constructions, the Actional Submissive Clause Type V.a5, and the Passive Submissive Clause Type V.a6.

(4) In the SEA languages, the Adjective Clause Type does not require
a copula, something like 'be' in English. In Burmese, the Equational Clause Type B.a5 has only an optional equational predicate which is obligatory only when the clause type is in a negative form.

(5) Although not apparent in the formulas, the SEA languages can have any tagmeme topicalised by being placed at the beginning of a clause, for example:

(6) Burmese is the only language that has the tagmeme ordering S O Pr as in B.a2, B.a3, and B.a4.

(7) The 'it' Stative Clause Type E.a10 is unique in English.

2.2. CLAUSE CLASSES IN CONTRAST

On the Clause Class Dimension, the following dissimilarities can be noticed:

(1) In English, the Yes-No Interrogative, Non-Subject Interrogative, and Extra Interrogative Clause Classes E.c, E.e, and E.f have their S Pr order reversed. In the SEA languages, the tagmeme ordering is always S Pr whether it is a declarative or interrogative clause class.

(2) In the SEA languages except Burmese, the Dependent Clause Classes have the same form as the Interrogative Clause Classes in that the tagmeme ordering is always S Pr, whereas in English, the Dependent Clause Classes have the S Pr tagmeme ordering, and the Interrogative Clause Classes (except the Subject Interrogative Clause Class E.d) have the reversed ordering.

(3) In Burmese, all Dependent Clause Classes are nominalised.

3. DEEP VERSUS SURFACE STRUCTURE

Since in foreign language learning, performance is what counts even more than competence, and since performance can be measured in terms of an individual's capability of making only grammatical utterances, the surface structure is as important as, if not more important, than the deep structure.

The system of tagmemic analysis as demonstrated above is particularly powerful in presenting the grammatical elements of surface structure in terms of the function and form of each unit being contrasted. The matrix displays presented above can show the surface relationships
between various clause units. Surface structure transformational rules can also be conceived to relate the Passive Clause Types E.a5, E.a6, and E.a7 to the Active Clause Types E.a2, E.a3, and E.a4 in English for example. They are as well capable of showing the differences between the Extra Interrogative and Non-Subject Interrogative Clause Classes in English and in the SEA languages in that in English, an Extra Interrogative Clause such as 'When did he go?' or a Non-Subject Interrogative Clause such as 'What did he buy?' can be conceived as going through two transformational stages, the first one from 'He went yesterday' or 'He bought a book' to become 'Did he go yesterday?' or 'Did he buy a book?', and the second one from the two Yes-No Interrogative Clauses to the Extra Interrogative or Non-Subject Interrogative Clauses in question, and in that in the SEA languages the same Clauses would be derived directly from their kernel Declarative Clauses.

However, it is also the belief of the author that contrastive analysis should explore the deep structure in order to present the relationships between different surface structure patterns that have a common deep structure, and to distinguish similar surface structure patterns that have diverse deep structure cases. In order to show how contrastive analysis can be enriched by considerations on the deep structure, I shall use Case Grammar as developed by Charles Fillmore (1968, 1970a, and 1970b) to explain some of the differences found in 2 above.

Case grammar is a system which views the deep structure of sentences as a set of relations between a verb and a series of case-marked noun phrases. The series of noun phrases constitutes a set of roles which are useful in classifying verbs in terms of the case frames in which they occur. The system is particularly powerful in relating sentences with identical deep structures but diverse surface structures, and in differentiating sentences with identical surface structures but diverse deep structures.

Let us take the verb 'give' which appeared in E.a3 and E.a6, and see how contrastive analysis can benefit from Case Grammar. The deep structure of the two clauses exemplified in E.a3 and E.a6 can be represented as follows:

\[
give [+\_ (A) (D)]
\]

\[
\text{Sent.} \quad \begin{array}{c}
\text{V} \\
\text{give} \\
\text{[±Passive]}
\end{array} \quad \begin{array}{c}
\text{A} \\
\text{John} \\
\text{[±animate]}
\end{array} \quad \begin{array}{c}
\text{D} \\
\text{Mary} \\
\text{[±animate]}
\end{array} \quad \begin{array}{c}
\text{O} \\
\text{book} \\
\text{[−animate]}
\end{array}
\]

The verb 'give' is marked with +Passive. Thus, by applying the optional realisation rule of passivation, we can get the sentences in E.a6. Furthermore, because it is hospitable to both an Agentive case A and a Dative case D, we can have two passive sentences, one with the Dative case as surface Subject and one with the Objective case as surface Subject. Such an insight to the deep structure would be invaluable in transformational drill preparation.

In the previous example using 'give' we could see how two diverse surface structures such as the active and the passive forms could be related, let us see how two similar surface structures can be differentiated in the two Submissive Actional and Submissive Passive Clauses V.a5 and V.a6 in Vietnamese:

\[
\text{bì } [+\text{(D)} \text{ O}]
\]

\[
[+\text{Submissive}] [+\text{animate}]
\]

\[
\text{undergo } \text{ he}
\]

\[
[-\text{Transitive}] [+\text{animate}]
\]

\[
\text{go } \text{ he}
\]

V.a5. No bì dì. 'He had to go.'

\[
\text{bì } [+\text{(D)} \text{ O}]
\]

\[
[+\text{Submissive}] [+\text{animate}]
\]

\[
\text{undergo } \text{ he}
\]

\[
[+\text{Transitive}] [+\text{animate}] [+\text{animate}]
\]

\[
\text{reprimand } \text{ they } \text{ he}
\]

V.a6. No bì (họ) rày. 'He was reprimanded (by them).'
Such a differentiation of similar surface structures that have
diverse case frames will help the textbook writer eliminate the con-
struction of drills that would form such sentences like 'John is eager
to please' and 'John is easy to please' on the same basis, and would
give him insights to the semantic differences between these sentences.

4. PHILOSOPHY OF APPROACH

Contrastive analysis points out the similarities and differences on
the surface structure of languages. Thus, it plays an important role
in area linguistics. Furthermore, since in language learning the sur-
face structure is as important as the deep structure, contrastive
analysis should not be rejected because one belongs to a linguistic
camp. On the contrary, if one is prepared to make use of existing
theories and techniques in an eclectic way, one will be able to make
contrastive analysis more powerful and make use of it in foreign lan-
guage teaching until another cognitive hypothesis can offer a more
efficient language acquisition technique than drill and overlearning.

Contrastive Analysis can be assisted by error analysis and statis-
tical studies of the frequency of occurrence of grammatical construc-
tions. Error analysis, such as the one done for English-Vietnamese
contrastive studies by the present author (Liem 1970a) will enable the
applied linguist to set up a hierarchy of difficulty upon which he will
be able to develop a philosophy of approach to teaching and learning
problems. Finally, since the aim of foreign language learning is com-
munication, the relative frequency of occurrence of grammatical as
advocated by the present author for English (Liem 1970b) and Vietnamese
(1970c) should serve to establish which grammatical constructions should
receive priority in a language textbook.
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THE VALUE OF AU AND AI IN MIDDLE KHMER

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The years from the abandonment of Angkor in 1431 down through the eighteenth century were a time of radical phonological, morphological and syntactic changes which formed the transition from late Old Khmer to early modern Khmer. The phonological changes in question affected the consonant system and the vowel system alike. The chief development in the consonantism was the devoicing of the old voiced stops while that in the vocalism was the generation, out of the original inventory, of two parallel subsets of syllable nuclei now generally known as the "registers". Describing the various changes which took place and fixing their order in time is an enterprise which no one has yet attempted, presumably because of the absence of a reliable method or of evidence recognisable as such. While the historical development of Khmer is still only very imperfectly understood, it now appears that at least some of the changes that occurred, together with their sequence, are discoverable from Middle Khmer metrical texts.

The purpose of the present paper is to suggest that the graphemes au and ai had the value in pre-modern Khmer (before the development of the registers) of /aw/ [ɪw] and /aj/ [ɪj], respectively, rather than the commonly assumed /aw/ [aw] and /aj/ [aj]. Because this claim is likely to run counter to the views of most Cambodian and other scholars who consider the matter, these two symbols provide a particularly welcome opportunity for me to describe the evidence and the method of analysis on which my conclusion is based.

As a preface to what follows it may be mentioned that the modern view of au and ai as representing original /aw/ and /aj/ apparently arises from the precedence assigned to the Low Register (LR) generally\(^1\) and, in