

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

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0. Introduction
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2. Clause Units in Contrast
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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

slots.*

SUMMARY TABLE I
THE 87 CLAUSE UNITS IN ENGLISH

I	II	III	IV	No.	1	2	3	4	5	6	7	8	9	10	
Inde- pendent	Without an Interrogative tagmeme	Declarative		1	+	+	+	+	+	+	+	+	+	+	
		Imperative		2	+	+	+	+	+	+	+	+	+	+	
		Yes-No Interrogative		3	+	+	+	+	+	+	+	+	+	+	
	With an Interrogative tagmeme	From Declar- ative kernel	Interrogative Subject	4	+	+	+	+	+	+	+	+			
		From Inter- rogative kernel	Interrogative Non-Subject	5		+	+	+		+	+	+	+	+	+
			Extra-Inter- rogative	6	+	+	+	+	+	+	+	+	+	+	+
Dependent	Without an Extra Dependent tagmeme	Dependent Subject		7	+	+	+	+	+	+	+	+			
		Dependent Non-Subject		8		+	+	+		+		+			
	With an Extra Dependent tagmeme	Dependent Relative		9	+	+	+	+	+	+	+	+	+	+	+
		Extra Dependent		10	+	+	+	+	+	+	+	+	+	+	+
The ten Clause Classes <															

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 [+S +Pr +O +AtCompl]
 Transitive *They elected him chairman.*
- E.a5. Passive [+S +PassPr ±A]
 It was bought by him.
- E.a6. Double Passive [+S +PassPr +(I)O ±A]
 She was given a book (by him).
 It was given to her (by him).
- E.a7. Attributive [+S +PasPr +AtCompl ±A]
 Passive *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]
 Stative *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:

E.b.		[+ImpPr...] <i>Go!</i>
E.c.	Yes-No Interrogative	[← +S +Pr...] <i>Are you going?</i>
E.d.	Subject Interrogative	[+InterS +Pr...] <i>Who is going?</i>
E.e.	Non-Subject Interrogative	[+InterNonS +[+YesNoInterCl -NonS]] ←-----→ <i>What did he buy?</i> <i>Who did he give it to?</i>
E.f.	Extra Inter- rogative	[+XInterIntroducer +YesNoInterCl] <i>Where did he go?</i>
E.g.	Subject Dependent	[+DepS +Pr...] <i>...that went...</i>
E.h.	Non-Subject Dependent	[±DepNonS +DeclCl [+S +Pr -NonS]] ←-----→ <i>...(that) he bought...</i> <i>...(who) he gave the book to...</i>
E.i.	Relative Dependent	[±RelDepIntroducer +DeclCl] <i>...(that) he went...</i>
E.j.	Extra Dependent	[+XDepIntroducer +DeclCl] <i>...when he went...</i>

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.

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 embedded 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:/ allomorph 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/ 'possibility, 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]
 koət tɛ́w *He went.*

C.a2. Transitive [±S +Pr ±O]
 koət tɣ̃n s̃iɛwphéw (múuej) *He bought a book. múuej 'one'*

C.a3. Double Transitive [$\pm S$ $\pm Pr$ $\pm O$ $\pm IO$]

koet jock s'iewphéaw qaaoj n'ien *he take book give her*
 koet cuun s'iewphéaw mook n'ien *he offer book come her*
(He gave her a book.)

C.a4. Attributive Transitive [$\pm S$ $\pm Pr$ $\pm O$ $\pm AtCompl$]

kée réeh koet c'ia prath'ien *c'ia 'to be'*
(They elected him chairman.)

C.a5. Submissive [$\pm S$ $\pm SubmPr$ $\pm SubCompl$]

koet ttúuel tuk kée w'iaj koet *He was beaten by them.*
 ttúuel *'receive'*
 tuk *'pain'*

C.a6. Equational [$\pm S$ $\pm EqPr$ $\pm EqCompl$]

koet c'ia koon s'eh *He is a student.*

C.a7. Adjective [$\pm S$ $\pm AdjPr$]

koet claat *He is intelligent.*

C.a8. Stative [$\pm m'ienPr$ $\pm StCompl$]

m'ien koon s'eh piir 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 $\pm Pr$]

kham téaw *Please come.*
 kham *'try'*

C.c. Alternative Interrogative [$\pm DeclCl$ $\pm AlternInterPhrase$]

qaaen téaw r'yy n'éaw *Are you going or staying?*

C.d. Yes-No Interrogative [$\pm DeclCl$ $\pm YesNoInterPhrase$]

qaaen téaw (r'yy) téé *Are you going?*
 qaaen téaw r'yy *r'yy 'or'*
 téé *'no, not'*

C.e. Subject Interrogative [$\pm InterS$ $\pm Pr$]

neek naa téaw *Who goes?*

SUMMARY TABLE III
THE 76 CLAUSE UNITS IN CAMBODIAN

I	II	III	No.	1	2	3	4	5	6	7	8
Independent	Non-Interrogative	Declarative	a	+	+	+	+	+	+	+	+
		Imperative	b	+	+	+	+				
		Alternative	c	+	+	+	+	+	+	+	+
	Interrogative	Yes-No	d	+	+	+	+	+	+	+	+
		Subject	e	+	+	+	+	+	+	+	
		Non-Subject	f		+	+	+	+	+		+
		Extra	g	+	+	+	+	+	+	+	
Dependent	Without Extra Tagmeme	Subject	h	+	+	+	+	+	+	+	
		Non-Subject	i		+	+	+				
	With Extra Tagmeme	Relative	j	+	+	+	+	+	+	+	+
		Extra	k	+	+	+	+	+	+	+	+
The eleven Clause Classes <											

C.f. Non-Subject Interrogative [\pm S \pm Pr \pm NonSInter]

koet t \dot{y} n naa (q \ddot{a} ejwan naa) *What did he buy?*
q \ddot{a} ejwan 'wares, goods'

C.g. Extra Interrogative [\pm S \pm Pr \pm XInter]

koet t \acute{e} ew (tii) naa *Where did he go?*
tii 'place'

C.h. Subject Dependent [\pm InterS \pm Pr]

(knom d \dot{y} ŋ) neek naa t \acute{e} ew haaej *I know what person went.*
(knom d \dot{y} ŋ) neek daael t \acute{e} ew haaej *I know the person who went.*

C.i. Non-Subject Dependent [\pm S \pm Pr \pm InterNonS]

(knom d \dot{y} ŋ) koet t \dot{y} n naa *I know what he bought.*

C.j. Relative Dependent [\pm RelDepIntroducer \pm DeclCl]

(knom d \dot{y} ŋ) thaa koet t \acute{e} ew haaej *I know that he went.*

C.k. Extra Dependent [+S +Pr +XDepIntroducer]

(knom dŷŋ) koet tŷew (tii) naa *I know where he went.*
 (knom dŷŋ) tii naa koet tŷew

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:

Ct.a1. Intransitive [+S +Pr]

keúih heui *He went.*

Ct.a2. Transitive [+S +Pr ±O]

keúih maai syù *He bought a book.*

Ct.a3. Double Transitive [+S +Pr +IO ±O]

keúih bái keúih syù *He gave her a book.*
 keúih bái syù keúih

Ct.a4. Attributive Transitive [+S +Pr ±O +AtCompl]

keúih-deih syún keuih Jouh jyú-jihk *They elected him chairman.*
 Jouh 'to be'

Ct.a5. Submissive [+S +SubmPr +SubmCompl]

keúih bái keúih-deih dá *He was beaten by them.*
 bái 'undergo a bad experience'

Ct.a6. Equational [+S +EqPr +EqCompl]

keúih haih hohk-saàng *He is a student.*

Ct.a7. Adjective [+S +AdjPr]

keúih chùng-ming *He is intelligent.*

Ct.a8. Stative [+yáuhPr +StCompl]
 yáuh léuhng-go hohk-saàng *There are two students.*

SUMMARY TABLE IV
 THE 81 CLAUSE UNITS IN CANTONESE

I	II	III	No.	1	2	3	4	5	6	7	8
Independent	Non-Interrogative	Declarative	a	+	+	+	+	+	+	+	+
		Imperative	b	+	+	+	+				
	Interrogative	Alternative	c	+	+	+	+	+	+	+	+
		Yes-No	d	+	+	+	+	+	+	+	+
		Realisation-Non-Realisation	e	+	+	+	+	+	+	+	+
		Subject	f	+	+	+	+	+	+	+	
		Non-Subject	g		+	+	+				
		Extra	h	+	+	+	+	+	+	+	+
Dependent	Without an Extra Dependent tagmeme	Subject	i	+	+	+	+	+	+	+	
		Non-Subject	j		+	+	+				
		With an Extra Dependent tagmeme	Relative	k	+	+	+	+	+	+	+
	Extra	l	+	+	+	+	+	+	+	+	+
	The twelve Clause Classes 										

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 m̄heui a *Are you going or staying?*
 yikwaahk 'or'
 m̄ 'not'

- Ct.d. Yes-No Interrogative [+DeclCl +YesNoInter]
 néi heui m̄ heui a *Are you going?*
 néi heui ma
- Ct.e. Realisation-Nonrealisation [+DecCl +RnonRInter]
 Interrogative
 néi heui-jó mei a *Did you go?*
 mei 'not, not yet'
- Ct.f. Subject Interrogative [+InterS +Pr]
 b̄īngo heui a *Who goes?*
- Ct.g. Non-Subject Interrogative [±S +Pr +NonSInter]
 keufh maáí-jó māt-yéh a *What did he buy?*
- Ct.h. Extra Interrogative [±S +Pr +XInter]
 keufh heui-jó b̄īnsyu a *Where did he go?*
- Ct.i. Subject Dependent [+DeclCl]
 (ngó jǐ) b̄īngo heui-jó *I know who went.*
- Ct.j. Non-Subject Dependent [±S +Pr +NonSDep]
 (ngó jǐ) keufh maáí-jó māt-yéh *I know what he bought.*
- Ct.k. Relative Dependent [+DeclCl]
 (ngó jǐ) keufh heui-jó *I know he went.*
- Ct.l. Extra Dependent [+S +Pr +XDep]
 (ngó jǐ) keufh heui-jó b̄īn-syu *I know where he went.*

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.

- LT.b. Imperative [+ImpPr...]
 paj Go!
 paj
- LT.c. Alternative Interrogative [+DeclCl +AlterPhrase +DeclCl]
 cǎw si paj ly̌y si jǔu Are you going or staying?
 khun cǎ paj ry̌y (phǎk)
- LT.d. Yes-No Interrogative [+DeclCl +YesNoInter]
 cǎw si paj bɔɔ Are you going?
 khun cǎ paj mǎj
- LT.e. Right-Wrong Interrogative [+DeclCl +RWInter]
 cǎw si paj mē̃n bɔɔ You are going, aren't you?
 khun cǎ paj chǎj mǎj
- LT.f. Realisation-Nonrealisation [DeclCl +RnonRInter]
 Interrogative
 cǎw (dǎj) paj lɛɛw ly̌y nǎn Have you gone yet?
 khun (dǎj) paj ry̌y jǎn
- LT.g. Subject Interrogative [+InterS +Pr]
 phǎj paj (mē̃n phǎj paj) Who went?
 khraj paj
- LT.h. Non-Subject Interrogative [±S +Pr +NonSInter]
 laáw (dǎj) sy̌y nǎn What did he buy?
 khaw (dǎj) sy̌y ʔaraɲ
- LT.i. Extra Interrogative [±S +Pr +XInter]
 laáw (dǎj) paj sǎj Where did he go?
 khǎw (dǎj) paj nǎj
- LT.j. Subject Dependent [+DepIntroducer +DepS +Pr]
 (khôj) hǔu wā̃ mē̃n phǎj paj I know who went.
 (rúu) wā̃ khraj paj
- LT.k. Non-Subject Dependent [+DepIntroducer ±S +Pr +NonSDep]
 (khôj) hǔu wā̃ laáw (dǎj) sy̌y nǎn I know what he bought.
 (rúu) wā̃ khǎw sy̌y ʔaraɲ

LT.1. Relative Dependent [+RelDepIntroducer +DeclCl]

(khôj huù) wāa laáw (dàj) paj *I know that he went.*
 (ruú) wāa khăw paj

LT.m. Extra Dependent [+DepIntroducer ±S +Pr +XDep]

(khôj huù) wāa laáw (dàj) paj sǎj *I know where he went.*
 (ruú) wāa khăw paj thîi nǎj

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-Inter-rogative	Declarative		a	+	+	+	+	+	+	+	+	+	+						
		Imperative		b	+	+	+	+	+	+	+	+	+	+						
	Interrogative	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						No.	1	2	3	4	5	6	7	8					
IV							Intransitive	Single	Double	Attributive	Submissive	Equational	Adjective	Stative						
							Transi- tive													
III																				
II							Active				Non-Active									
							Grammatical Subject				S-less									
The eight Clause Types							I													

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	[±S +Pr]	
	Nó đi.		<i>He went.</i>
V.a2.	Transitive	[±S +Pr ±O]	
	Nó mua sách.		<i>He bought books.</i>
V.a3.	Double Transitive	[±S +Pr +IO ±O]	
	Nó cho họ sách.		<i>He gave them books.</i>
V.a4.	Attributive Transitive	[±S +Pr ±O +AtCompl]	
	Nó làm họ sợ.		<i>He made them afraid.</i>
V.a5.	Actional Submissive	[±S +SubmPr +SubmActlCompl]	
	Nó bị đi.		<i>He had (was forced) to go.</i>
V.a6.	Passive Submissive	[±S +SubmPr +SubmPasCompl]	
	Nó bị (họ) rầy.		<i>He was reprimanded (by them).</i>
V.a7.	Equational	[±S +EqPr +EqCompl]	
	Họ là sinh-viên.		<i>They are students.</i>
V.a8.	Adjective	[±S +AdjPr]	
	Họ giàu.		<i>They are rich.</i>
V.a9.	Stative	[+cóPr +StCompl]	
	Có hai người.		<i>There were two people.</i>

1.6.2. Clause Classes in Vietnamese

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

V.b.	Imperative	[±S +ImpPr...]	
	Ông hãy đi.		<i>Go! (Mr had better go.)</i>
V.c.	Alternative Interrogative	[+DeclCl +AlterPhrase +DeclCl]	
	Ông đi hay (ông) ở?		<i>Are you going or staying?</i>

SUMMARY TABLE VI
THE 108 CLAUSE UNITS IN VIETNAMESE

I	II	III	IV	V	No.	1	2	3	4	5	6	7	8	9	
Inde- pendent	Non-Inter- rogative	Declarative			1	+	+	+	+	+	+	+	+	+	
		Imperative			2	+	+	+	+	+	+	+	+	+	
	Inter- rogative	Alternate			3	+	+	+	+	+	+	+	+	+	
		With (không)	Yes-No Interrogative		4	+	+	+	+	+	+	+	+	+	+
			Right-Wrong Inter- rogative		5	+	+	+	+	+	+	+	+	+	+
		With (chưa)	Realisation- Non-Realisation Interrogative		6	+	+	+	+	+	+	+	+	+	+
			With an Inter- rogative tagmeme	With a nucleus Inter- rogative tagmeme	Inter. Subject	7	+	+	+	+	+	+	+	+	+
		Inter. Non- Subject			8		+	+	+	+	+	+		+	
Extra Interrogative		9		+	+	+	+	+	+	+	+	+	+	+	
Dependent	Without an Extra Dependent tagmeme	Dependent Subject			10	+	+	+	+	+	+	+	+		
		Dependent Non-Subject			11		+	+	+			+			
	With an Extra Dependent tagmeme	Dependent Relative			12	+	+	+	+	+	+	+	+	+	
		Extra Dependent			13	+	+	+	+	+	+	+	+	+	
<div>The thirteen Clause Classes</div> <div>The nine Clause Types</div>					No.	1	2	3	4	5	6	7	8	9	
					IV	Intransitive	Single	Double	Attributive	Actional	Passive	Equational	Adjective	Stative	
					III	Transi- tive									
II	Active				Sub- mis- sive	Iden- tifi- cative									
	I	Grammatical Subject								S-less					

- V.d. Yes-No Interrogative [+DeclCl] +YesNoInter]
 Ông đi (hay) không? *Are you going?*
- V.e. Right-Wrong Interrogative [+DeclCl] +RWInter]
 Ông đi phải không? *You went, didn't you?*
- V.f. Realisation-Non-realisation [+DeclCl] +RnonRInter]
 Interrogative
 Ông đi chưa? *Did you go?*

V.g.	Subject Interrogative	[+InterS +Pr...]
	Ai đi?	<i>Who went?</i>
V.h.	Non-Subject Interrogative	[±S +Pr +InterNonS]
	Nó mua gì?	<i>What did he buy?</i>
V.i.	Extra Interrogative	[±S +Pr... +XInter]
	Nó đi hồi nào?	<i>When did he go?</i>
V.j.	Subject Dependent	[±DepS +Pr...]
	...(mà) đi...	<i>...that went...</i>
V.k.	Non-Subject Dependent	[+DepNonS ±S +Pr...]
	...(mà) nó mua...	<i>...(that) he bought...</i>
V.l.	Relative Dependent	[+RelDepIntroducer +DeclCl]
	...(rằng) nó đi...	<i>...(that) he went...</i>
V.m.	Extra Dependent	[+XDepIntroducer +DeclCl]
	Khi nó đi...	<i>When he went...</i>

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:
Sách này, tôi mua hôm qua. Lit.: *That book, I bought yesterday.*
- (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.

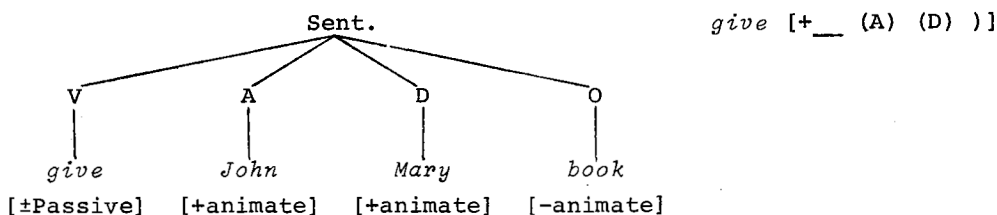
The system of tagmemic analysis as demonstrated above is particularly powerful in presenting the grammatical elements of surface structure in terms of the function and form of each unit being contrasted. The matrix displays presented above can show the surface relationships

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.

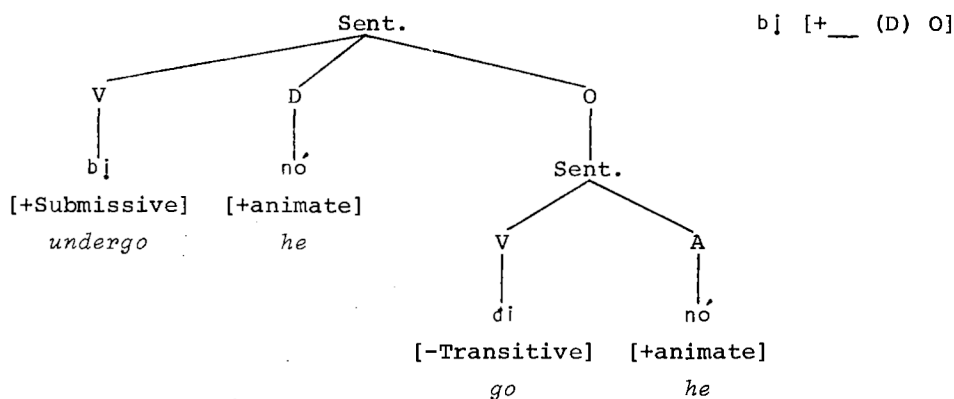
Case grammar is a system which views the deep structure of sentences as a set of relations between a verb and a series of case-marked noun phrases. The series of noun phrases constitutes a set of roles which are useful in classifying verbs in terms of the case frames in which they occur. The system is 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:

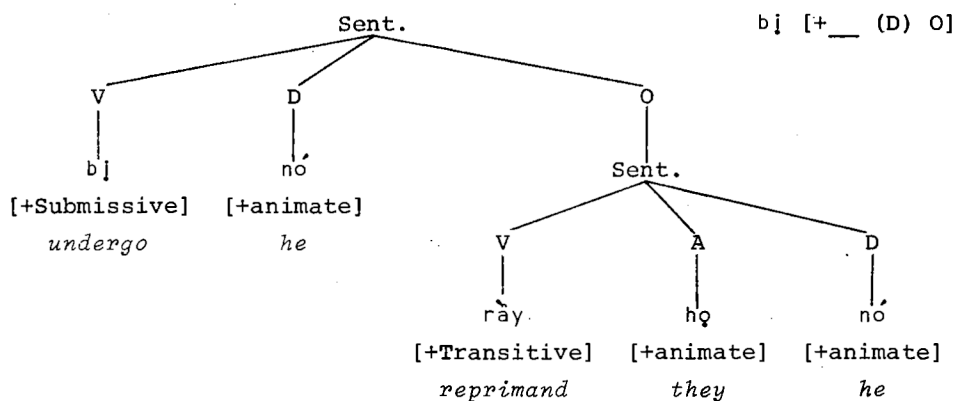


The verb 'give' is marked with \pm Passive. Thus, by applying the optional realisation rule of passivation, we can get the sentences in E.a6. Furthermore, because it is hospitable to both an Agentive case A and a Dative case D, we can have two passive sentences, one with the Dative case as surface Subject 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:



V.a5. Nó bị đi. 'He had to go.'



V.a6. Nó bị (họ) rầy. 'He was reprimanded (by them).'

Such a differentiation of similar surface structures that have diverse case frames will help the textbook writer eliminate the construction 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 surface 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 language 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 statistical studies of the frequency of occurrence of grammatical constructions. 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 communication, 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

PHILIP N. JENNER

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 /əw/ [ɿw] and /əj/ [ɿj], 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) generally¹ and, in