

CLAUSE - EFFICIENT VS. PARAGRAPH - EFFICIENT LANGUAGES

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0. INTRODUCTION

An Italian friend of mine, fluent in Latin and well trained in Greek, was trying to learn Thai. He commented to me that Thai is a frustratingly difficult language to learn. Each sentence in his Thai textbook could be translated several different ways in English. *Pay năy* 'go where?' could be translated as "Where are you going?", "Where should we go?", "Where did he go?", "Where will they go?", etc. Frustrating!

He also said that Italians sometimes wonder how speakers of the impoverished English language can understand each other, with the near-total lack of case endings on English nouns. Italians feel that the ideal for logical communication is languages with efficient case systems like Latin, Greek, and Italian!

Any Westerner who has learned a mainland Southeast Asian language such as Vietnamese, Thai, Khmer, and the like, has frequently experienced frustration in not knowing who or what is being talked about in a particular sentence. Similarly any Southeast Asian person trying to write in English or some other Indo-European language is continually frustrated at having to put in tenses, pronouns, and the like.

Indo-European languages are sometimes said to be more precise or more accurate or more logical. Southeast Asian languages are sometimes said to be imprecise or unscientific or underdeveloped, or are said to have no grammar. But these are obviously chauvinistic Western statements which no linguist should subscribe to.

1. LIEM'S LAWS

Nguyen Dang Liem (1969) in his attempt to contrast Vietnamese and English grammar clearly perceived the difference between these two types of lan-

guages and distilled it into two laws of Vietnamese grammar: the law of indeterminacy and the law of simplicity (1969: xxx - xxxiii).

The law of indeterminacy (p. xxxi) is described as "Vietnamese Sentences, both Minor and Major Sentence Types, are not necessarily self-sufficient units, but they can, and usually do, rely on larger linguistic, or extra-linguistic matrices which explain or complete their meaning. What is assumed to be known is not repeated in the actual Sentence units. In other words, Vietnamese Sentences are usually contextually Dependent Sentences."

Liem illustrates indeterminacy with the sentences

(English) *I bought it yesterday.*

(Vietnamese) *Mua hôm qua* (lit. buy yesterday).

These would be the respective answers to the question "When did you buy this book?" English must use the pronoun *I* and *it* here, though they are both old information; Vietnamese uses no nouns or pronouns.

He also gives the example:

Nó về tôi về + Falling Intonation
he return I return

This may mean, in different contexts:

If he goes home, I'll go home too.

When he goes home, I'll go home too.

Every time he goes home, I go home too.

Because he is going home, I am going home too.

Because he went home, I went home too.

Since he might be going home, I am going home now.

etc.

The law of simplicity (p. xxxii) is described as "(such a language) tends to use simple constructions, and compound constructions, rather than to use

complex constructions...they do not have a complex internal structure of Clause within Clause. They are more usually Compound Sentences containing successive Clauses which can be coordinated or not. ... Instead of using pyramiding structures of constructions within constructions, it tends to use lengthy but simple coordinate successive constructions. ”

Liem illustrates simplicity with :

Nó về	nhà	thì	(nó)	gặp	một
he	return	house	(he)	meet	one
người	khách				
person	visitor				

In Vietnamese events are usually stated in chronological order and in coordinate clauses. In English, however, events are frequently stated in non - chronological order :

He met a visitor when he returned home.

It is not that Vietnamese does not permit non - chronological order, but it strongly prefers chronological order because that permits simpler coordinate sentences.

Liem's Vietnamese data could be readily matched with data from Thai, Khmer, Chrau, and other similar languages.

2. CLAUSE - VS. PARAGRAPH - EFFICIENCY

What constitutes efficiency in language, and what are some of the implications of efficiency differences between languages? Language efficiency could perhaps be defined as the communication of a whole thought once and only once. Communication of the same information more than once is redundancy; lack of needed information is communication breakdown. So efficiency is maximum communication with minimum effort.

In semi - mathematical or logical systems efficiency often refers to using the minimum number of basic units. Efficiency usually entails maximum use of Occam's Razor.

The purpose of language is to communicate, often in situations with a high level of noise. Thus efficiency in language use aims at maximum communication in normal situations. Efficiency when there are perfect speakers, perfect hearers, and no noise or distractions would seek zero redundancy. Efficiency with a heavy rainstorm beating on a tin roof and a large family of children running around shouting would require very heavy redundancy. But normal language use, and thus normal language efficiency, would be

somewhere in the middle between these two extremes, with a medium amount of redundancy.

I would like to suggest that the grammatical levels at which efficiency is most strongly aimed can be a useful typological categorization of languages. The overall efficiency of languages is probably quite similar, with a similar total expenditure of effort, because our innate speech processing abilities are the same, on the average. But the specific areas of efficiency and redundancy may differ between languages.

Languages like Latin, Greek, Italian, and Sanskrit are very efficient at the clause rank, with each clause able to stand as a self - contained information unit. Every verb requires an overt indication of the time setting (tense) and the subject. Direct objects and recipients are often overtly required. And in languages like English almost every noun phrase requires an indication of its specificity (definite and indefinite articles). The result is that one can look at a clause and without having to search farther afield can construct the action being communicated. *The cat saw the rat* tells us that it is talking about the cat and rat that were already identified, and that it happened in the past. This is efficient for close study of what has been said or written. It is ideal for common types of mathematical logic.

But when looked at the paragraph or discourse rank, English and other clause - efficient languages appear very inefficient, with continual unnecessary repetitions of the subject, object, definiteness, tense, etc., which the hearer already knows. A classroom experiment by Dorothy Thomas (pers. comm.) showed Russian with higher discourse redundancy than English, and English higher than Thai.

On the other hand, Southeast Asian languages are efficient at the paragraph rank, so that if one looks at a paragraph as a whole he gets the information with little redundancy concerning participants or settings : once named they are assumed to be known. We are also given only minimal indication of the relationships between clauses or sentences : the relationships are evident from the context. This is ideal for narratives about familiar situations.

But when looked at the clause rank Southeast Asian languages appear very inefficient, giving inadequate information for constructing the action being communicated. They appear to be “ vague ”, as in the Vietnamese examples cited above from Liem.

Clause - efficient languages also tend to have heavier marking of the external functions of clauses, using conjunctions to mark them as cause, result, purpose, etc. Paragraph - efficient languages tend not to mark clause functions, simply juxtaposing the clauses and leaving the functions to be implied by the context.

Thus Liem's "law of indeterminacy" may be restated as saying that Vietnamese is a paragraph - efficient language. And his "law of simplicity" approaches being a corollary of paragraph efficiency in that parsimony of overt markers would tend to reduce embedded constructions which require marking.

3. PRACTICAL IMPLICATIONS

Can language pedagogy profit from this? A practical implication of this is that Thai learners of English and English learners of Thai require opposite strategies of communication efficiency, going against their deeply ingrained feelings of how language should be used. An English speaker needs to practice omitting redundant pronouns and tenses; a Thai speaker needs to practice adding redundant pronouns, tenses, and articles.

Our standard language - learning textbooks tend to be clause-based, resulting in my Italian friend's frustration when trying to learn Thai. Would it be less frustrating and more natural to build Thai or Vietnamese lessons around the paragraph?

In translating, going from a clause - efficient to a paragraph - efficient language, one should delete many of the participant references, time (tense) indications, and relation indicators. In going the other direction the participants, time, and relations will often need to be added.

In checking translations this factor also needs to be in the foreground of one's thinking. A translation checker whose background has been mainly in clause - efficient language types will tend to insist on overuse of pronouns and overuse of conjunctions between clauses. He will tend to want to make the translator mark semantic relations too overtly. This needs to be guarded against if the translation is to sound natural.

In oral interpreting for a foreign lecturer, a paragraph - efficient lecturer should be allowed to say a whole paragraph before being interrupted for interpretation. Clause - efficient lecturers can be interrupted more frequently. And for an audience with a paragraph - efficient language, a foreign lecturer should give a longer stretch before pausing for interpretation

(but not too long to strain the interpreter's memory!).

One note of caution, however, should be sounded here. The genre of the text and the familiarity of the " script " can affect the amount of semantic marking in a paragraph - efficient language. A narrative text in Thai about a very familiar type of event or series of events, e.g. a market scene, will reduce relation markers, pronouns, etc., to the barest minimum. But a logical text in Thai about Eskimo use of different types of snow would require everything to be made very explicit. Other genres and scripts would range in between. So a translator needs to consider what is the genre of the text and how familiar is the subject.

Oral style in many languages tends to be more paragraph - efficient, with more intonational and extra - linguistic clues. Written style has to compensate for lost clues by being more clause - or sentence - efficient. Poetry and aphorisms tend toward paragraph efficiency too.

Parallel poetry, such as ancient Hebrew poetry, has the interesting combination of high paragraph efficiency (much deletion of known information) with high redundancy (much identical or synonymous repetition), defying translation.

4. CLAUSE - VS. PARAGRAPH - DETERMINED BASIC CLAUSE ORDER

Talmy Givón, as reported by Payne (1986 : 49), draws a contrast between Indo - European languages whose basic clause type is determined by notions like subject and object (i.e. clause - rank elements), and languages like Ute, Papago, and Biblical Hebrew, where basic clause order is determined by notions like definiteness or topicality (i.e. paragraph - rank elements).

This is not the same phenomenon as clause vs. paragraph efficiency, as this is concerned with preverbal and postverbal placement of nominals. But it does show a clause vs. paragraph influence on language strategies.

Indo - European languages in general are both clause - efficient and have clause - determined basic order. Lisu (Hope 1974) and Biblical Hebrew are apparently paragraph - efficient and also have paragraph - determined basic order. Thai and Vietnamese mix the types, being paragraph - efficient but having clause - determined basic order.

5. FURTHER NOTES AND MUSINGS

Grice's Maxim of Quantity, though similar in some ways, is not quite the same as grammatical efficiency. Grice's "quantity" is concerned with informational efficiency, with transmitting neither more nor less information than is needed. My "efficiency" is concerned with overt redundancy or parsimony when transmitting the same information. (Note Hohulin's (1987) discussion of Grice.)

If Aristotle had been a Thai would he have developed the syllogism, with its required clause efficiency? Would modern logicians have developed mathematical logic, with its required clause and sentence efficiency?

If Aristotelian logic (from thinking in a clause-efficient language) is the basis of modern physical

science, would Confucian or Taoist logic (from thinking in a paragraph-efficient language) provide a better basis for the social sciences or humanities? Western proposition-based logic and philosophy strive for carefully-defined clause-efficient accuracy of statements, while Chinese philosophy delights in the hidden meanings, the half-verbalized concepts growing out of integration with the universe at the highest ranks of communication? Is this purely accidental?

What do languages look like that are intermediate on the scale of grammatical efficiency? Sentence-efficient? Would English fit better here?

This paper is a preliminary raising of the question. Comments, observations, criticisms, and suggestions will be welcome.

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