

RESEARCH PAPER :

"A RESEARCH APPLICATION OF TAGMEMICS
TO THE TEACHING OF ENGLISH STRUCTURE"

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Introduction

The following research paper on "A Research Application of Tagmemics to the Teaching of English Structure" is a research paper which I presented at the Fourth Academic and Research Seminar at Dhurakijpundit University, Bangkok, on 24 November, 1994.

Apart from introducing the linguistic application of tagmemic theory to the analysis of English structure, the paper also offers a "new" technique for teaching English structure, particularly English sentences to Thai students.

One of the common problems which Thai students encounter while studying English as a foreign language is the mastery of producing grammatical English sentences, both in written and spoken form. The application of tagmemics to English structure can be used by teachers of ESL/EFL to assist their students in producing grammatical English sentences. From this stage, it is only one step further to

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producing grammatical English paragraphs. Further practice at the sentence level and, later, at the paragraph level, will help Thai students towards this goal. This tagmemic technique has been used by the writer in the course "English for Finance and Banking" for English majors with success at Dhurakijpundit University.

In tagmemics, any description of language must meet three basic requirements : the description has to be able to handle the sounds of language, the forms of language, and the arrangements of such forms in sentences.

Tagmemic theory is able to handle all three. It deals with the sounds of language; the forms of language; and, the arrangements of such forms in a three tiered hierarchy of phonology (sounds), lexicon (words), and grammar (arrangements of such forms or words).

The paper I am presenting here looks at the syntactic level or grammatical hierarchy of English where the "tagmeme" is the smallest unit and various tagmemic constructions as larger units in the hierarchy.¹

The theory of tagmemics was initially introduced to the linguistic circle by Kenneth L. Pike in his publication "Language in Relation to a Unified Theory of the Structure of Human Behavior" (see bibliography). According to Pike, the unit of language description can be simultaneously described as "particle, wave, and field".

By "particle", the units of language are looked at in their "feature mode". In this feature mode, the language units are described as "clear-cut particles", with each particle well defined. This is a static view of language.

By "wave", the units of language are looked at in their "manifestation mode". This is a dynamic view of language as opposed to the static "particle view" above.

By "field", the units of language are looked at in their "distribution mode." This is a systematic or functional view of language.

1. The writer analyzed and contrasted English and Thai question patterns using the tagmemic model as part of his Ph. D. dissertation which was written at the University of Pittsburgh, Pennsylvania U.S.A. (see Bibliography). This present paper on the application of tagmemics to English structure looks at a particular aspect of English structure namely, the sentence or clause structure, via the tagmemic approach. It further develops the application of tagmemics to English syntax which I published in **Trends in Linguistics**, a university text on linguistic research which I wrote and published at Thammasat University. (see Bibliography).

By viewing the unit of language description as "particle wave, and field" simultaneously, the tagmemicist does not separate the language unit into three parts. Rather, the language unit is simultaneously looked at from three different viewpoints - as a divisible unit; as composed of variants; and, as part of a set of oppositions within a field or matrix or system. But first, it is necessary to look at the fundamentals of tagmemics before applying tagmemics to English structure.

Section I : The Concept of the Tagmeme (correlation of function and form)

The Tagmeme

In tagmemics, at the syntactic level, the tagmeme is the correlation of a functional slot with the class of items that fill that slot. The tagmeme unit, then is a "composite of function" (subject/object, etc) and "form" (noun/noun phrase/ pronoun, etc). It is not merely a form unit as in other grammatical models. In its manifestation, the **forms** (words/phrases, etc) fill the **slots** (functions).

It should be emphasized from the beginning that the tagmeme is neither a function nor a filler class. Rather, it is a correlation of **both slot** and **class**. We can abbreviate this description as a slot-class correlative.

The Tagmemic System

At the syntactic level, the tagmemic system is very clear with regards to the naming process. Function and form (or, slot and filler) are both named in a position such as:

S : N

This is a simplification of the tagmeme as represented by a "subject" (function) slot filled by a "noun phrase" (form). (In tagmemic formulation, capital N can stand for noun phrase, noun, or pronoun.)

In tagmemics, the **form** (noun / noun phrase / pronoun in the above example) is named by listing the forms that fill the slot to the right hand side of the ratio mark

(:). The **function** is named by giving a label to the syntactic meaning carried by the forms to the left hand side of the ratio sign (subject function in the above example).

When this tagmemic unit is placed in a tagmemic string (called a syntagmeme or construction), it becomes possible to answer such questions relating to: the role (subject, object, etc) it performs, where it occurs (its distribution), what it is, etc.

Types of Tagmemes

There are various types of tagmemes in the English language. Tagmemes can be of the obligatory (necessary) variety or optional (can occur or need not occur) variety. Alternatively, tagmemes can be nuclear (central) or peripheral (surrounding). Tagmemes can also be in fixed or movable positions. This can be summarized as follows.

- (a) Obligatory tagmemes vs optional tagmemes
- (b) Nuclear tagmemes vs peripheral tagmemes
- (c) Tagmemes distributed in fixed or movable positions

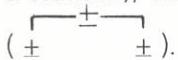
(a) Obligatory tagmemes occur in every occurrence of the structure. Optional tagmemes occur in some but not all of the manifestations of the construction.

(b) A nuclear tagmeme, on the other hand, is central to the construction in which it occurs and can be either obligatory (necessary) or optional (can occur or need not occur).

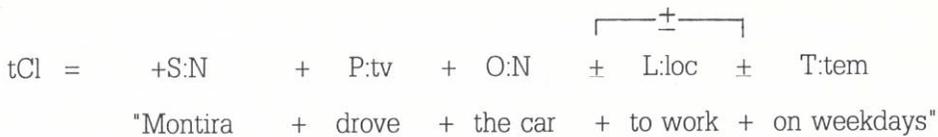
(c) A peripheral tagmeme, on the other hand, is a tagmeme that is not diagnostic (not central) to the construction in which it occurs. Moreover, it is always optional. On occasion, peripheral tagmemes are also called satellite or marginal tagmemes.

At the clause level, since nuclear (central) tagmemes are central to the clause construction, they are represented by such tagmemes as "subject", "predicate.", "locator" , etc.

It is possible to have tagmemes which are both "nuclear" and "optional". Moreover, tagmemes are either "movable" or "fixed" in a construction string. Since English has movable word order (Sunida is, after all, a student. vs. After all, Sunida is a student.), this feature of English clause level constructions can be formally indicated.



For example, in the English transitive clause such as the following, it is necessary to indicate its construction tagmemically as follows:



This tagmemic formulation indicates that the construction has movable tagmemes and that the movable tagememes are also optional. It is possible to say the following in English:

- "Montira drove the car (on weekdays) (to work)" /or
- "Montira drove the car (to work) (on weekdays) /or
- "(On weekdays), Montira drove the car (to work).

The Syntagme

It is possible to compare tagmemic units with the links in a chain. Similarly, tagmemic units are strung together in constructions. Such constructions are called syntagmemes in tagmemics. Technically, the syntagme is a potential string of tagmemes, where words/morphemes fill grammatical slots.

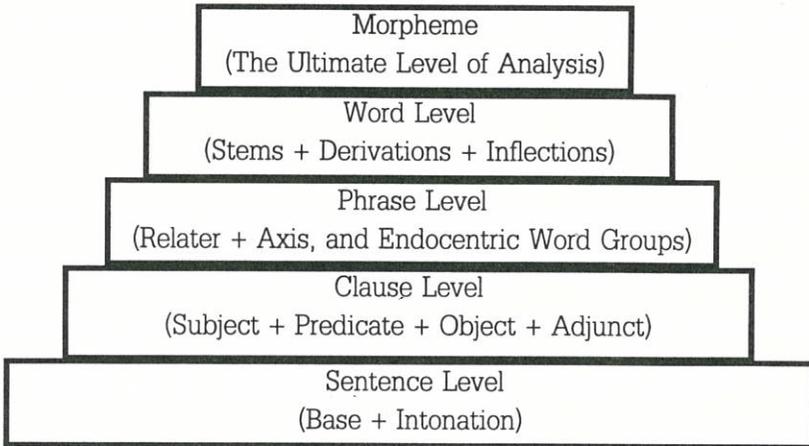


Diagram : The Tagmemic System of Grammatical Levels

The Tagmemic System of Grammatical Levels (see diagram above)

In tagmemics, the grammatical **unit** is the tagmeme itself, which is a correlation of function and form where the **construction** is a potential string of tagmeme units, or, the syntagmeme. The **system**, then is the grammatical hierarchy, arranged in a series of systematic levels such as in the diagram above.

The smallest unit is the morpheme. The largest unit is the sentence which is similar to the clause (the sentence, however, includes intonation).

In tagmemics, grammatical levels are relative positions in "grammatical space" defined in relation to one another (see diagram above). The most common levels in grammar are the sentence, the clause, phrase, and word levels. This is clearly seen in the English language at the syntax or grammatical level. The five typical levels of grammatical constructions are the sentence, the clause, the phrase, word, and morpheme levels.

The **sentence level** is the level of grammar where sentences are broken into dependent and independent clauses, along with (for the English language) its intonation.

The **clause level** is that grammatical level where the structures consist of subjects, predicates, objects, and various clause adjuncts such as **time, place, and manner**.

The **phrase level** is the grammatical level where the structured word groups which are not clauses are broken down into words (heads and modifiers).

The next smaller grammatical level is the **word level**. This is the level where the words of the language are broken down into their constituent morphemes (roots + derivations).

The smallest level in syntax is the **morpheme level** which consists of the ultimate meaningful constituents of a language. (The sound level is outside the scope of syntax.)

Tagmemic Grammar

In simplified terms, tagmemic grammar is composed of

- (a) a set of formulas at the various relevant levels
- (b) a lexicon of constituent morphemes

As stated earlier, tagmemics centers around well-defined units called tagmemes, which are, the correlation of a functional slot with the filler class. In a linguistic construction, these units combine in syntagmemes or strings of tagmemes. These constructions, as defined and identified above, are grouped at various levels of grammar.

Tagmemic Formulation

In the description of a language, it is possible to set up a series of tagmemic formulas at the natural levels of language, namely, the sentence, the clause, the phrase, and the word. The tagmemic model consists of a series of syntactic statements at these natural levels, namely, at the sentence, the clause, the phrase, and word levels.

In a tagmemic analysis, it is necessary to be precise and elements which can be left out from the sentence/clause structures are marked as optional (\pm); all other elements are marked as obligatory (+).

Section II: Some Applications of Tagmemics to English Structure

For the application of tagmemic formulation to the English language, the **clause** and **phrase** levels are most relevant.

At the Clause Level

The clause that constitutes the sentence base is analyzed as a string made up of subject, predicate, object and the sentence elements of **time** and **place**.

In tagmemic grammar, slot names are marked with capitals; fillers have capital letters for word groups and small letters for single words.

General Clause Level Construction

tCI = + S:N + P:tv + O:N \pm L:RA \pm T:tem

Manop, the teacher + returned + the books + to the library + just yesterday

In tagmemics, this is read as: a transitive clause consists of a subject slot filled by a noun phrase; a predicate slot filled by a transitive verb; an optional object filled by a noun phrase; an optional location slot filled by a relater-axis phrase; and, an optional temporal slot filled by a temporal phrase.

Phrase Level Constructions

The word groups that fill clause level slots are analyzed into constituent words. Slot names are marked with capitals; fillers have capital letters for word groups and small letters for words.

RA = + R:rel + Ax:N
to the Dhurakijpundit University Library

In tagmemics, this is read as: a relater axis phrase consists of a relater slot filled by a relater (preposition), and an axis slot filled by a noun phrase. (This is equivalent to the prepositional phrase in traditional grammar.)

N	=	Det:det	+Pos:pos	+H:N
		the	university's	books

In tagmemics, this is read as: a noun phrase consists of a determiner slot filled by a determiner; an optional possessive slot filled by a possessive, and a head slot filled by a noun.

Tem	=	+ Int:int	+H:tem
		just	yesterday

In tagmemics, this is read as: "a temporal phrase consists of an optional intensifier slot filled by an intensifier and a head slot filled by a temporal word."

Clause Types

Different languages may have different constructions, but, English clause level constructions (syntagmemes) can be broadly categorized into independent clauses and dependent clauses (just as in traditional grammar).

It is possible to further classify English independent clauses into 3 main types as either (1) transitive; (2) intransitive; or (3) equational.

In tagmemics, a **transitive clause** (type 1) has a verb which can take an object. As we saw earlier, a typical clause level formula for an English transitive clause (type 1) is as follows:

tCi	=	S:N	+P:tv	+O:N
		Manop	ate	lunch.

An **intransitive clause** (type 2), on the other hand, has a verb which never takes an object. A typical formula for an English intransitive clause (type 2) is as follows:

itCl = +S:N + P:iv +L:loc
 Apasra went home.

An English **equational clause** (type 3). on the other hand. is defined as a clause that contains an equational or linking verb. The linking verb connects the subject with the predicate attribute, which may be nominal , adjectival, or adverbial.

A typical formula for an English equational clause is as follows:

eqCl = +S:N +P:equ +PA:N
 Suchart is the leader.

Section III: Further Applications of Tagmemics to English Structure - Derived English Clause Types

Apart from simple declarative clause types (sentences, in simple grammar terms), we can also form derived types of clauses as follows.

The main derived clause types in English are:

- (1) questions
- (2) commands
- (3) passives
- (4) negatives

The first two types (questions and commands) are opposed to English statements as follows:

(1) Questions:

(1a) Some English questions (wh-questions) at clause level have **question words** as fillers for clause level slots.

Q eqCl = +S:Q pn +P:eqn +PA:N
 Who are the students?

(1b) Another derived clause type of English questions involve a **question signal** (a reversal) :

QiCl	=	+Aux:aux	+S:pn	+P:iv	+L:loc
		Is	Supatra	going	home?

(2) Commands:

Commands in English differ from statements at the clause level through subject deletion and an imperative mood verb form:

C=tCl	=	+P:tv (imp)	+O:N
		(Suchart) Open	the door!

(3) Passives:

English passive clauses differ from active clauses through changes in the subject of the active clause and changes in the voice of the verb. The subject of the active clause becomes agent of the passive. The object of the active clause becomes subject of the passive clause.

Verb forms for active and passive differ in the marking of the voice feature. Note the following:

Active transitive clause

tCl	=	+S:N(1)	+P:tv	+O:N (2)
		Suchawadee	wrote	the report

Passive transitive clause

tCl (p)	=	+S:N (2)	+P:tv (p)	+Ag:RA
		The report	was written	by Suchawadee

Negative clauses

English negative clauses, on the other hand, differ from the active in the presence of a negative in the main verb phrase.

tCl	=	+SN: (1)	+P:tv	+O:N (2)
		Suchawadee	wrote	the report

tCI(n)	=	+S:N (1)	+P:tv (neg.)	+O:N (2)
		Suchawadee	didn't write	the report

Why Tagmemics?

I would like to conclude this paper with a few words on the advantages of the tagmemic approach to language analysis and presentation especially in teaching Thai students to write grammatical English sentences.

To re-cap, tagmemics emphasizes the correlation of function and form of linguistic units at clearly defined levels. It presents English structure, especially clause level structure, in a clear-cut way.

Tagmemics is an advanced form of structuralism which treats language as a form of behaviour which can be re-inforced and, as such, is useful in language instruction and in learning the patterns or syntactic structures of English.

Tagmemics is also generative in the sense that it is a sentence generator. Through the use of formulas and a sophisticated lexicon, (collection of necessary words) numerous and innovative sentences can be produced even by learners of English as a foreign language. Thai students can be taught to use it. It can generate a maximum number of syntactically and semantically acceptable sentences.

Tagmemic formulation also allows for the presentation and variation of linguistic strings. This helps in both the presentation of English language material and the learning of the basic forms and functions in English syntax.

Tagmemics also defines the various levels of constructions in a clear-cut manner. The tagmemic conventions and symbols used in tagmemic formulation are straight-forward and self-explanatory. Once taught and mastered by Thai students, it can be readily applied and interpreted.

Because of these characteristics and features, tagmemics is both useful and suitable to Thai university teachers and students for the presentation, re-inforcement, and acquisition of new language material such as English syntax. □□

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