SECTOR ANALYSIS AND IDIOMS

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0. This paper is divided into three parts. In Part I idioms will be defined and their characteristics described. Part II is a summary of Sector Analytical theory and practice. Part III contains the description of a suggested procedure for the handling of idioms in the Sector Analytical framework.

1.1 Various contemporary systems of syntactic analysis, whether of the discovery type such as immediate constituent analysis, tagmemics, and sector analysis, or of the rule-governed variety such as generative transformational grammar have placed a great deal of emphasis on the description of highly abstract grammatical categories into which idioms, with their often complex grammatical structure, but usually unitary meaning, do not easily fit.

1.2 Wallace L. Chafe in an article on "Idiomaticity as an Anomaly in the Chomskian Paradigm" in the May 1968 issue of Foundations of Language arrives at the conclusion that generative syntax is clearly unable to account for a phenomenon as pervasive in language as idiomaticity. I do not intend to discuss Chafe's argument here; that article stands on its own merit. However, Chafe makes four important observations regarding idioms that are pertinent to this paper:

"First, the meaning of an idiom is comparable to the meaning of a single lexical item. Sam kicked the bucket equals Sam died.

Second, most if not all idioms exhibit certain transformational deficiencies. The passivization of Sam kicked the bucket, The bucket was kicked by Sam results in loss of idiomatic meaning.

Third, there are some idioms which are not syntactically well-formed, such as by and large, to kingdom come and trip the light fantastic.

Fourth, an idiom which is well-formed will have a literal counterpart; kick the bucket also means 'strike the pail with one's foot'."

1.3 The question of whether idioms are to be regarded as complex or single lexical items is also raised by Alan Healey of the Summer Institute of Linguistics in his article on English Idioms in the August 1968 issue of Kivung. Actually, it was Healey's article that had provided the original impetus to the writing of this paper. While I consider Healey's contribution to be of unquestioned value, based on painstaking research and rich in examples, I have differed and still do from his approach in two basic aspects: in his definition of idioms and in his classification of the "idioms" so defined.

1.4 For the purpose of this paper, an idiom is defined as a phraseological unit whose meaning cannot be arrived at from the separate meanings of the constituents of the unit.

Excluded therefore are linguistic units below the level of phraseological units:

a) words that contain only one independent morpheme, such as lemon even when it means 'somebody or something that proves to be unsatisfactory or undesirable' as in that car is a lemon or broke (Healey's example of a one-word idiom) meaning 'penniless, bankrupt' as in he is broke.

b) compounds, whether solid (overseer, bookcase) or hyphenated (jack-in-the-box, merry-go-round).

Compounds are excluded, even though their meaning cannot be arrived at from the meanings of the constituent members, e.g., bookcase is not merely book and case put together. They are excluded because their number is so high that their addition would swell the ranks of idioms to unmanageable proportions. Furthermore, there exists overwhelming evidence that neither solid nor hyphenated compounds present problems in syntactic analysis.

To render this separation theoretically acceptable, I propose to divide syntagmatic units into two categories: syntagmatic simples and syntagmatic complexes.

A syntagmatic simple is defined as a morpheme or combination of morphemes that enters into syntagmatic relations as an indivisible unit. When the meaning of a syntagmatic simple cannot be derived from the meanings of its constituents, it is classified as a word-level idiom. Bookcase, overseer, jack-in-the-box, merry-go-round belong in this category. The rest of syntagmatic simples are our old friends, the simple words.

A syntagmatic complex whose meaning cannot be derived from the meanings of its constituents will be classified as a syntagmatic idiom; e.g., hot dog meaning a) 'sandwich made of a hot sausage served in a roll of bread, with mustard', b) 'You don't say', and c) 'What a sexy dame!'

1.5 Healey classifies hot dog as a 'noun phrase of limited expandability' (p. 82). But linguistic ingenuity is not taken into account. Is it inconceivable that someone whose tongue gets burned as he bites into a hot hot dog might exclaim: Wow! That's a really hot dog! or That's the hottest dog I ever had! ? Examples of such verbal play on idioms abound in literature. In a recent New Statesman article on the Middle East I found this sentence: Verbal threats from the Arabs break no Israeli bones, on the analogy of sticks and stones will break my bones, but names will never hurt me. The latter would surely be classified as 'an idiom which functions like a sentence' (p. 91) by Healey, i.e. one that is not expandable at all.

And can anyone, with even the wildest stretch of imagination, call President Johnson, the Ford Foundation, Smith Street, Mrs. Craig (p. 82) idioms?

Many of Alan Healey's 'idioms which function like nouns' (p. 81) are de facto nouns that behave just like ordinary English nouns and fulfill the same variety of functions. E.g. mothball can function as a modifier, as in this closet has a horrible mothball smell, can take an adjectivalizer suffix 'mothballish smell', or be turned into a verb: mothballing for the summer, are you?

The grammarian's headache is due exclusively to syntagmatic idioms. How to handle them is the subject of this paper.

2.1 The following is a brief summary of Sector Analysis; necessary background information can be obtained for R.L. Allen's works, listed in the bibliography.

The line below gives the spectrum of positions (i.e. sectors) that English syntactic structures may occupy according to sector analysis; the diagram is presented in a somewhat modified form from Allen's original arrangement.

Y L] F) I $\overleftarrow{X}$ S $\overleftarrow{M}$ X M V $\overleftarrow{C}$ $\overleftarrow{B}$ O B C C_1 C_2 D (E PP [Y Z

(Arrows indicate regularly shifted positions)

2.2 In the examples to follow, some of the constructions that can fill these positions are illustrated; other types of possible constructions are also listed with examples:

Y L F I X S V O B C

John, afterwards, when you were alone, why didn't you hand the money over to Peter

D

to hide it somewhere?

Y: Nouns of address (John), attention getters (I say), greetings (hello), interjections (darn it!), and hesitation signals (well).

L: Sentence linkers (afterwards).

F: Front position for sentence modifying adverbials (yesterday, last week, when you were alone).

I: Introductory position for question introducers (when, why).

X: Carriers of time indication and, in negations, of carriers of the negator n't (isn't, didn't, shouldn't).

S: Subject position for nominals. These can take the form of noun clusters (the money), noun clauses (What I owe you is in the bank), pronominals (he, she, it, they), shifters (I, we, you), predicatids (to fight a losing battle), etc.

V: Verbs (hand, went) and verb clusters (been discovered).

O: Object position for nominals (cf. list of constructions in S position).

B: Complement position for particles (B is one of the positions for complements. These are defined as either words or constructions that are essential in a first-instance sentence, i.e. in a sentence that can communicate as the first sentence in any connected text.).

C: Complement position for prepositional phrases with to or for. These can shift (losing the to or for in the process) to the pre-O position, marked C on the diagram.

D: Droppable position for predicate post-modifiers. These are constructions that only modify the predicate and can therefore be dropped without essentially changing the meaning of the sentence (George dropped his hat on the floor.).

Second example to illustrate further positions:

S X M V O C_1 E Y Z
These people would never have elected John president without my help, my friend, would they?

M: Middle position for predicate pre-modifiers (never).

C_1: The first of the two non-shiftable complement positions, filled by endocentric constructions ('clusters' in sector analytical terminology) whose referent is usually the same as that of the previous endocentric construction in Subject or, if it is also filled, in Object position (George is a teacher.).

E: End position for sentence-modifying adverbials that can usually shift to Front position.

Y: The second extraneous position for nouns of address (John, my friend), and interjections.

Z: For tag questions (would they?).

Two positions have not been illustrated yet:

C_2: Second non-shiftable complement position for exocentric constructions such as on the table in: S X C_2
My books are on the table.

PP: Position for postponed subjects such as to find him in:
S X C PP
It was impossible to find him.

2.3 As demonstrated, Allen places particles such as over in Complement position functioning as essential units for a first instance sentence. In his textbook Allen gives a list of particles and says that they are "in most cases identical with ... single word prepositions... which, in time, came to be used without objects." Further on he says that "some particles have both literal and figurative meanings" and adds the not entirely rigorous criterion that "it is almost always possible, however, to shift the particle around a preceding object nominal (but not around a pronominal) to the shifted B position, which immediately precedes the O position."

And lastly he observes that "it sometimes happens that a particle will be droppable in the presence of a /prepositional/ phrase, while the /prepositional/ phrase, in turn, will be droppable in the presence of a particle.... In /such/ sentences, it is probably better to analyze both the particle and the phrase as belonging in the W (i.e. Complements) territory instead of assigning the phrase to the D/roppable/ sector since it can be dropped." (pp. 167-8)

This description seems to run counter to one of the fundamental tenets of Sector Analysis, namely that a syntactic unit functions as a complement only if it cannot be dropped without essentially changing the meaning of the sentence, let alone leaving an ungrammatical torso behind.

Whenever a verb and particle combination possesses idiomatic force, the particle cannot be dropped, i.e. it will always function as a complement.

(1a) We looked the words up in the dictionary.

(1b) *We looked the words in the dictionary.

(2a) Simmer down, old chap!

(2b) *Simmer, old chap! is a grammatical sentence, true enough, but represents ontological nonsense. However,

(3a) Simmer the soup down a little more, --meaning 'reduce it in volume by simmering' (Random House Dictionary of the English Language, 1965) does not essentially change in meaning if down, the particle, is dropped.

(3b) Simmer the soup a little more,--a grammatical as well as an ontologically viable sentence.

Similarly, in non-idiomatic look plus up, up is often a droppable modifier only:

(4a) Just look up in that direction, and you will see the plane.

(4b) Just look in that direction, and you will see the plane.

and even the particle in B and the phrase in C position can be dropped:

(4c) Just look, and you will see the plane.

Let it be added that there also exist bi-transitive verbs which demand two complements, in which case even a particle used with its literal meaning will function as a complement that cannot be dropped:

(5a) Put that book down.

(5b) *Put that book.

2.4 It seems to me that already, on the basis of the cited examples, I am justified in observing that it is futile to pretend that we do not consider meaning in our syntactic analysis. Even the so-called differential meaning which is accepted by Allen and by numerous other linguists as a tool in syntactic analysis is, coming down to brass tacks, an appeal to meaning to determine the syntactic structure of sentences.

Experience has furthermore made me realize that language is so sensitive an instrument that true-or-false-type questions regarding its structure do not penetrate beyond the surface. In actual fact, they will frequently lure us to a surface that proves to be quicksand engulfing the analyst beyond recovery.

As Dwight Bolinger has so impressively demonstrated in his books and articles, especially in Generality, Gradience and the All-or-None, in linguistic phenomena "continuum calls the tune and the discontinuum is forced to dance." (p.11)

3.1 Each syntagmatic idiom needs recognition as such in syntactic analysis, and in recognizing an idiom differential meaning is too blunt a tool to be of value.

It follows therefore that the analyst must identify verb plus particle combinationswith figurative meaning in sector as well as in any other type of syntactic analysis.

Not having as yet examined enough instances to provide a definitive answer as to procedure, I am going to propose a tentative solution only, for application in Sector Analysis.

3.2 U_{Id}: (1a) We looked the words up in the dictionary

T: # S P #

P: # V O B #

Id: looked the words up
searched for the words

On the U(tterance) level, (1a) is identified as an utterance containing an idiom (U_{Id}). Also on this level, the sentence modifying adverbial in E(nd) position is separated by an arch from the trunk of the sentence, which in turn is marked with an * because it represents

the nucleus modified by the sentence adverbial in End position.

On the T(runk) level, the trunk is enclosed between diamonds, signalling that it is an exocentric construction, i.e. a construct with more than one indispensable constituent. The first constituent enclosed in a square is labelled S because it functions as the subject, the second constituent is marked with a wavy arrow and labelled P for Predicate.

On its own level, the Predicate is shown to be a construct with three indispensable constituents functioning as V(erbal), O(bject), and B (particle complement), respectively.

Since the idiom fills the three sectors of the predicate construct, its constituents are rewritten under their respective sectors. The solid line under look and up indicates that no lexical substitution is allowed in these two constituents, while the dotted line under the words signals that lexical substitution is permissible.

A non-idiomatic equivalent is given under the line. Its presence is not as significant here as in idioms with restricted syntactic mobility.

(2a) U_{Id}: Simmer down, old chap!
T & P: # V B #
Id: simmer down
relax

In (2a) the Attention Getter old chap is separated on the U_{Id} level and labelled Y because its function, essentially one of modification, is also extraneous to the structure of the remaining trunk.

The trunk, being a command, consists of a Predicate only, with the V(erbal) and the B (particle complement) sectors filled. The next level is that of the idiom which covers the territory of the Predicate Construct. Simmer has a dotted line because calm and cool are possible lexical substitutes while the solid line under down excludes lexical substitution.

(3a) U & T & P: Simmer the soup down a little more.
P: # V O V #
V: *
O: *

In (3a) the Utterance has no sentence adverbials: it also functions as the Trunk. Being a command, it has no unit in Subject position: it is also the Predicate. The Predicate is a cluster; it has a post-modifier which is cut off and labelled D for Droppable.

The Predicate itself is a construct that contains a discontinuous verb cluster which, on

its own level, is described as a nuclear verb with its own droppable modifier. In O(bject) position we find a cluster with a determiner the and a nucleus soup.

V O B
(4a) U & T & P: # Put the book down. #

(4a) is simultaneously an utterance, a trunk, and a predicate. The predicate is a construct with three indispensable constituents functioning as Verbal, Object, and Complement.

3.3 Leaving verb and particle combinations behind, let us now examine how sector analysis determines which unit functions as Object.

S P
(5a) U & T: The police found John Brown in the bush.
PK: * D
P: # V O #
OK: → *

In (5a) John Brown is considered a noun cluster functioning as a nominal in O(bject) position because:

a) the referent of John Brown is not the same as the referent of the police.

b) John Brown can be made to function as a nominal in S position if the sentence is passivized

(5b) John Brown was found in the bush by the police.

c) John Brown is essential for the sentence to communicate at all.

(5c) *The police found in the bush.

We hit, however, a snag if we examine sentences containing idioms.

(6a) John lost his head.

a) Passivization destroys the idiom.

(6b) John's head was lost.

Since (6b) is not a corresponding passive sentence at all to (6a) in meaning, the passivization criterion does not apply.

b) Since nobody's head is really lost to the point of people starting to look for it in the room, the test to determine whether head has the same referent in reality as John cannot apply because there is no referent in the real world for that head.

Furthermore, head doesn't even function as an ordinary nominal. If we asked John the question: When you and your brother met again, did you really lose your head? He would not ordinarily answer, Yes, I lost it. but Yes, I did.

3.4 Let us apply my suggested solution for sentences containing idioms:

(6a) U_{Id} & T: # John lost his head. #
P: # V O #
Id: lost his head
became angry
V(lin) C

On the Utterance and Trunk levels there is a construct, the Predicate of which is another construct where positions are marked as if we were dealing with the literal counterpart of the idiom. Lost and head are underscored solid, indicating that no lexical substitution is permissible; his has a dotted line allowing lexical substitution. Under the idiom, the non-idiomatic equivalent is supplied, and the two sectors filled are indicated with the gramma - tical category of the nuclear verb added (linking verb) to forestall unworkable syntactic changes, e.g. passivization of the idiomatic utterance itself.

(7a) U_{Id} & T: S
She let the cat out of the bag.
P: # V O C_2 #
Id: let the cat out of the bag
inadvertently betrayed the secret
M V O

Here the non-idiomatic equivalent also has a Verbal plus Object structure, allowing, it seems, a passive turn of the idiomatic utterance itself:

(7b) The cat was let out of the bag.

(8a) U_{Id}: Hold your tongue or I'll do you in.
SU_1 & T & P: # V O #
Id: hold your tongue
keep quiet
V(lin) C

SU_2 & T: P
P: # V O B#
Id: do you in
kill you
V O

In (8a) there are two sentence units, separated by the coordinator or. The idiom in the first sentence unit has a non-idiomatic equivalent that contains a linking verb plus complement structure, apparently the reason why SU_1 cannot be passivized:

(8b) *Your tongue must be held!

SU_2 has a non-idiomatic equivalent with a V(erbal) plus O(bject) structure. Passivization is permissible.

(8c) You'll be done in!

3.5 Syntactically malformed idioms can be shown to fulfil ordinary syntactic function within the spectrum of positions. In the examples that follow, they will be marked as to positions filled first, and then as idioms with their non-idiomatic equivalents on the next line, thus indicating restricted syntactic mobility.

(9) U_{Id} & T: S X P
He has gone to kingdom come.
Pd: # V C_2 #
Id: gone to kingdom come
died
V(int)

Here the entire idiom can be substituted by a single word, which is classified on the word level as an intransitive verb.

(10) U_{Id}: F T
By and large, he has succeeded.
T: S X P
Vk: *
Id: by and large
generally
-ly adv

(11a) U_{Id} & T: X S P
Shall we trip the light fantastic?
Pd: trip the light fantastic
dance
V (semitransitive)

In (11a) a semitransitive verb without a unit in Object position replaces the Verbal Object idiomatic structure, blocking passivization. (11b) *The light fantastic will be tripped.

3.6 As a tentative conclusion, it seems that syntactically malformed idioms do not significantly differ in their behavior from syntactically well-formed idioms. However, idioms replaceable by non-idiomatic equivalents of similar syntactic structure seem to be less restricted in syntactic mobility than others. The unrestricted syntactic mobility of idiomatic verb-

plus-particle combinations indicates that native speakers of English are accepting them as ordinary lexical items rather than idioms even though they are never written as solid compounds, and often occur as a discontinuous structure.

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