Ruth Keck: "Notes on Symbolism Found in Katherine Anne Porter's
Flowering Judas."

(Reference to nature of the symbols is based on Cirlot's Book of
Symbols, N.Y., Philosophical Library)

In this story, I have looked for the following categories of
symbolism: Numbers, Colors, Power, Name, Shoe, Diamond, Flower,
Darkness, Musician, Gold, Horse, and Tree.

Symbolism in number is used in this story by the number "one".
There is one central character, Braggioni, and Miss Porter writes
her own story around this figure. In the beginning of the story there
is one room, one favorite song, one chair, a cup of chocolate, a
plate of rice, one table, and one "single mottled" lamp. Other
phrases denoting oneness are "lay a finger", loves himself", one
group, and "one in twenty collars". At the end of the story, numbers
tick in Laura's head in sequence - 1, 2, 3, 4, 5, - as she tries to
sleep.

According to Cirlot, "the number one is equivalent to the
'Centre', to the non-manifest point, to the creative power of the
unmoved mover. "One" is also equated with light and is the symbol of
divinity. It is symbolic of being and of the revelation to man of
spiritual essence. In this story it might be equated with Laura's
moral purpose, and multiplicity with evil.

Encased in a set of principles derived from her earlier training,
she is torn between her way of life and her feeling of what life
should be. This might be referred to as primigenial chaos. She

is determined not to surrender her will - a result of her early train-
ing in rigid principles - even though she becomes uneasy about her
sense of reality, she consoles herself by reading the "consoling
rigidity of the printed page". The number symbol "one" may be used by
the author to symbolize her so-called completeness in herself, for
which she strives.

The writer deals extensively with color symbols in this story,
even to the minor characters. Laura, who is the person the story is
really all about, wears a "blue sege" dress, with a white collar. A
white collar is folded in blue tissue paper; Laura undresses for bed
and puts on a white linen nightgown. She eats rice (white) and drinks
a cup of chocolate (brown). The "blue" could represent night and day,
or a personality that varies. Her eyes are deep gray, representing
neutralization, depression, inertia, or indifference - meanings
derived from the color of ashes.

Color symbols are very evident in this story. When the author
describes Braggioni, she uses the color, "yellow" coupled with the
debilitating colors in various shades of violet. Braggioni has yellow
hair, wears yellow shoes, a yellow silk handkerchief, and has "tawny
yellow cat's eyes". Yellow is one of the warm advancing colors,
corresponding to the processes of assimilation, activity and intensity,
and fitting to Braggioni's personality. The yellow is complemented
with shades of violet, which represents power. He wears a "purple

necktie", "lavender collar", and mauve silk hose, each a graduation
in shades of purple or violet, which could represent his changing
moods.   When he returns to his wife at home after one month's absence,
and his wife (who is "as good as gold") removes his yellow shoes as
he weeps for his baseness, and is esperiencing some sort of nostalgia;
my mental picture is mostly of the "mauve silk hose".   The shoe
symbolizes the 'lowly nature' in the sense of the humble and the
despicable.   The wife removing the yellow shoe in her humble fashion
could denote her humbleness, and the removal of some of his contemp-
tuous personality.

The young Captain with whom she takes a horseback ride, wears a
gray buckskin jacket with silver buttons.   The young singer, a shock-
haired" youth wears brown, and sings to Laura from "garden shadows of
cobalt blue.   She must remember to send him some colored crayons.
"The scarlet blossoms of the Judas Tree are dull purple.

Perhaps the writer is trying to say something about the betrayal
of life, red being the symbol for passion and the life giving prin-
ciple, and the tree symbolizing the life of the cosmos.   The names of
the colors automatically repeat themselves in Laura's mind while she
watches the shadow of the young singer.

Braggioni sings to Laura his songs of loneliness, as he bulges
in his expensive garments, a sign of his wealth.   His necktie is held
by a diamond hoop, symbolic of his treasures and riches.

Much of the action in the story is at night, denoting darkness.
Laura wears a dark dress, drinks a cup of chocolate (brown); there is
darkness in the shadows outside her room, and Braggioni visits in
darkness. The darkness may be associated with the evil and baseness
of Braggioni's political control. Laura borrows money from one
agitator to give to his enemy, and vice versa. Laura may still be in
"primigenial chaos."

' The musicians found in this story relate to a common symbol, the
fascination of death. Laura buys a gold Rosary, but it is no good
to her. She tries by slipping into churches to say a Hail Mary, but
ends up examining the ragged brocades and tinsel flowers of the altar.
This could also be symbolism relating to her being able to find con-
solation at the Altar, and is reminded of the sham sometimes made by
churches.

The horseback ride Laura takes with a young captain admirer ends
in indifference. Here again the horse is symbolic of the cosmic
forces, and the blind forces of primigenial chaos.

The title "Flowering Judas" is symbolic in itself, as well as the
name "Braggioni" which reminds the reader of a braggart, and a base
evil personality.

91A20-5-5-4

A THEORETICAL BASE FOR FOREIGN LANGUAGE INSTRUCTION:
Four Psychological Assumptions

by

Hubbard C. Goodrich

One of the essential characteristics of any educational program is the symmetry of its theoretical raison d'etre. No pedogogical position should be taken without an intensive study of the nature of the subject to be taught, the nature of learning, and a clear pragmatic statement of objectives. The purpose of this presentation is to provide and discuss one of these three: the four major psychological assumptions which provide a base for pedogogical and, specifically, foreign language teaching instruction. These interlocking assumptions are synoptic principles of learning which have been accepted actively or implicitly by the majority of language teaching specialists today. It is hoped that a re-compilation of these principles will be as helpful to the reader as they have been to the author as a testing ground for the educational fashion of the moment.

Descriptions of learning by various schools of psychology and an examination of the resulting theories might give one the frustrating feeling that there are more contradictions than agreements in the field. It may be that the general problem of learning is so complex that the relationship between performance and learning--between what can be observed and that which cannot be observed-- is incapable of analysis. However, there are a few principles about which most psychologists seem to agree, at least in part. One of the general points, in

fact, is that the most important ingredient in the learning recipe is the personality of the teacher, the rapport he has with his students, not the particular psychological principle espoused by the teacher.

Learning is generally conceded to be a relatively permantent change in behavior. Some change is inherited or biological, but any other modification is caused by an individual's adjustment to his environment directed or not as the case may be. Most behavior, then, is learned, good or bad, by observation, practice, trial and error, insight and filtered through an individual's innate neurological condition.

Assumption #1 - READINESS The development and durability of learning is directly influenced by the learner's physical and psychic attributes. No individual learns at the same moment in his life, in the same way, with the same quality, or quantity as any other person.

The following are the essential categories of Readiness the influence a student's personality and performance. The physical setting provides the individual with experiences - a total sensory picture of a world that becomes distinctly his. The social setting provides cultural and social sets - the common attitudes or patterns of behavior of the group. The physical components of the individual are his size, weight, age, motor and sensory proficiencies and deficiencies. The psychic components of the individual are his mental age, aptitude, memory, concentration, cognitive capacity[1] and mental set - his personal attitudes and prejudices toward the world around him. The learner accepts, rejects and modifies input and forms a unique flexible personality that conforms only statistically to a social norm.

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1. The existence or not of an innate neuro-imprint is a separate language acquisition device remain questions of continued dispute.

The impact of this assumption is obvious. A variety of methods and activities is required to meet a multiplicity of ages, interests and capabilities. We can not assume that what works one day will work another, with one group will succeed with another, or in one country will be effective in a second. Flexibility and an awareness of the many-faceted nature of man and learning is an essential requirement for any reliable teacher. The eclectic tutor, the one who does not limit himself to one approach, will most likely find his students making greater progress than the teacher who remains forever frozen into a tunnel-visioned carapace of tricks.

Assumption #2 - PRACTICE - The development and durability of learning is directly influenced by the degree and duration of Practice which is concerned with the duplication of performance and its conversion into physical skills or neurological habits which become partially or wholly unconscious. Once a pattern of behavior has been established, it resists interference from alternate forms of behavior. If generalizations or rules are established, as in verbal behavior, transfer or analagous performance becomes possible. The major considerations are what is practiced and how it is practiced. Our present concern is for the latter.

Active practice is considered more productive than passive practice. Two frequently heard aphorisms are 'You learn better by doing than by observing', or 'Use the language rather than study about it'.

Interval practice is considered more effective than intensive practice. This introduces the principle of mental or physical fatigue - an effect which reduces learning though activity may continue. A uniform activity creates fatigue if continued too long and calls for a change in activity or a rest. If an exercise should not be too long to become boring, neither should it be too brief for learning

to take place. Interval practice is concerned with effort efficiency to allow

for the dissipation of fatigue. Intensive practice is concerned with co-ordinate

efficiency. If a task is relatively easy or the student is Ready, more content

can be successfully covered and important content relationships might be lost if

arbitrary time divisions were made[2].

Systematic or regular presentation is considered better than haphazard or

irregular presentation. Learning seems to diminish if there is a lengthy time

lapse between practice sessions. Casual practice for years can not take the place

of daily practice for one year even if an equal amount of time is used. Redundancy

and regular review is essential to reenforce learning and retard the rate of

forgetting.

Practice alone is not enough for learning to take place. Certain kinds of

learning respond quite well to repetitive acts, especially the psycho-motor skills.

But overuse of mechanical drills and rote exercises may make later flexibility

difficult. If communication is to take place, if the student is ever to be free

of his tutor or book, opportunities must be made available for him to experiment

with the language. At some time in the language learning process, the student can

be placed in situations which force him to make choices, to manipulate the content

and generalizations he has achieved through other activities. Part of the teacher's

job is to reduce the possibility of error but not to the extent that the student

is forever limited to class machinations. A balance must be found between the

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2   This does not reject the effectiveness of intensive or 'total immersion'
     courses since other learning factors play a part. Intensive courses are
     usually considered more productive if the student is mature and highly
     motivated, but just how intensive an intensive course should be remains a
     question. Does learning double for every contact hour? or is there some
     diminishing effectiveness for each added increment of effort beyond a
     certain point?

right amount of practice for a particular student to develop habits that will later guide him during his independent flights.

Assumption #3 - MOTIVATION - The development and durability of learning is directly influenced by attitude and incentive - by a learner's independent interest in the task to be performed or objective to be achieved. Attitude and incentive are formed by the learner's (or his social group's) interpretation of the value of the goal, the reward, and the achievement. A number of observations can be made concerning this principle.

The more positive the attitude or the more vital the motivation the better the performance. If a student is to do well, he must have a personal interest in the task or goal. The more indirect or impersonal the interest the less likely it will be able to provide adequate pressure to generate effort. In fact, if the learner is unable or unwilling to understand or accept the incentives provided by others, and has no interest of his own, it is likely that practice will be unproductive. Helping the student to initiate and generate continued interest in the goals and processes of learning a second language is one of the most difficult but important duties of the language teacher.

Incentives vary from individual to individual, young to old, student to teacher, and from nation to nation. A well filled child is unlikely to be influenced by another meal; a hungry child might find such a reward very attractive; but an unfamiliar diet of red locusts and raw squid might be rejected even by one starving as a non-reward by other nationals. If we want our student to learn, we must provide a broad spectrum of options so that each can choose a flavour best suited to his own tastes.

The influence of reward generally diminishes with time or distance from the

goal. The farther a student is from achieving his objective the more difficult it may be for him to generate the energy or interest required to perform the necessary intermediate tasks. And, since achievement or success is a positive element of motivation, learning tasks arranged in small, frequent, relatively easy bites may be preferred to material arranged in large, infrequent, complex gulps. Diminution of reward over time suggest that in teaching (especially children) small immediate rewards given frequently will be more nourishing in strengthening an act than a massive reward given at the end of the period. But whatever the timing may be, some recognition for performance is important whether it is good or bad.

There continues to be some disagreement over the relative effectiveness of punishment and praise. The argument in support of praise is the following. Praise given at the time of improved performance helps focus and increase the probability of the re-appearance of that behavior. Punishment given at the time of unacceptable performance tends to decrease the re-occurrence of that behavior, but, by itself, does not prescribe the direction of approved behavior. It inhibits one avenue of movement. Others, equally wrong, may continue to be attractive. However, let us not forget that some students from some societies seem to respond less to the carrot than to the stick. Kindness may be equated with weakness (or some other abstraction) and pain or the cessation of pain is more effective in directing a student's attention and learning than kind words.

Assumption #4 - COGNITION - The development and durability of learning is directly influenced by the degree to which the learner has a conscious or unconscious perception of the task he is being asked to perform, the relation of the task to the objective, the relation of different tasks to each other, and the relation of the task to past experience. In short, you learn better if you understand and appreciate what is involved. Any task that is completely new to the

learner, unrelated or without place in his partition of reality will be difficult to percieve and recall.

In order to learn and remember, in order to be an effective social organism, the human animal is forced psychologically and linguistically to conform - to differentiate and categorize the even flow of nature into convenient conceptual modules as provided by his group.[3] It is the learner's job to mold new experiences into established classifications.

The native child's difficulties with concept formation is in discovering the parameters (which are seldom clear or distinct in any case) that distinguish or subordinate one category of experience from another. The bounderies of distinction, after all, are arbitrary finite conventions derived to simplify an infinite array of possibilities so that we can talk about things which are of importance to our society. Perceiving concepts requires that one see relationships among often conflicting stimulus. All four legged animals become cat in the overextended generalizations of a child's schemata of the animal world; *teached becomes a perfectly acceptable realization of an overgenerous interpretation of a linguistic rule that, in time, will be refined to greater discretion. The child, then, must find ever more discriminating bounderies that match those of his society and, at the same time, he must learn the accompanying utterance for the concept. Once the stimuli-generalizations-utterance sequence has been attained, once the organizing and labeling process has been achieved, it acts as a mnemonic device to assist acceptance, retention and recall of data.

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3   Are there innate qualities that prescind or prescribe
           mental development?

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The foreign learner's difficulty is that he possesses well established generalizations and concepts of his own, a harmony of comfortable attitudes and precepts, linguistic and semantic rules and regulations that have successfully ordered his life from the time he was born. Now he is being asked to learn a variant symetry that conflicts to a certain degree with his own. Not only does he have a linguistic problem - the disparity between the phonemes, lexicon and syntax of the first and second language - but a conceptual problem of semantic fit. Should he learn the deviant linguistic system as an overlay of his existing attitudes and knowledge? or should he try to keep the two systems as separate as possible so as to keep sharp the different kinds of distinctions made by the languages?

The problems for the language teacher are many. He must be sure that he does not give the impression that languages can be translated easily. He must make every effort to help his student appreciate his teaching strategems. He must be sure that sample materials are chosen which focus, narrowly at first, on a precept of the language. He must expose his class activities in a multiplicity of modes so as to take advantage of all the imbalanced learning faculties. He must be sure that ample opportunity is provided for the student to discriminate and note relationships between different linguistic and experimental situations. He must be sure to stress the importance of the rule or generalization rather than the particular examples chosen for exercise. Finally, the language teacher must learn to accept the idea that is is impossible to teach all of the language, even if he possessed such a complete knowledge. There is too much minutia, too many abstractions, inferences, and conotative aspects of communication that depend greatly on the environment in which the utterance is given. The best that we can do is to provide a central understanding and control over the more frequent items in the linguistic pantheon and hope that further refinements may take place. as they do with native

speakers, by additional exposure to the culture, to the language, and the people who spea! it.

It is not enough to know the language as a native speaker or as a linguist. It is not enough to know the various schools of psychology since both disciplines are equally incomplete, imprecise and quarrelsome. The most important question is 'What activities for the learner are most advantageous to the acquisition of a particular bit of skill, habit or knowledge within a specific environment?' Our job as teachers is to discover and provide the activities and conditions that will increase student achievement in the most efficient manner possible. An intelligent balance of the four assumptions discussed here is an essential concomitant to the development of any language course. Linguistic principles have their part to play as do policies implicit in a statement of objectives. But the complex mosaic of language learning would be incomplete with the substantial foundation of learning psychology .

Taking a Look at Numbering "N"

It is a fact of life, in all of its aspects, that no one can handle different items at precisely the same time. For example, it is to be observed that in teaching multiplication, one moves, over time, to more difficult problems. Presumably, it is a good idea to start with the simplest form of multiplication.

In studying sentence patterns, it is assumed that nearly all teachers will teach one sentence pattern first, followed by the other three sentence patterns in English.

Our Western tradition of viewing one item at a time, or in reading in one linear direction at a time, or in working through a time sequence of "and" and "and" is such that we establish degrees of difficulty and complexity, working from the simplest to the most complex.

This essential and practical sort of process has the disadvantage of keeping oneself from seeing the total number of possibilities. Let us consider that there are at least six uses of the noun or its equivalent.

We can teach them one at a time, working with N^1 today and working through N^6, perhaps six days or six weeks from now. We can, if we so desire, indicate, from the beginning, that there are six uses of "N" and that we will indicate these and then discuss each in detail.

I am somewhat partial or bent toward the latter approach. I like to see all the possibilities that exist first. Then, when discussing, for example, the third, I am aware of two choices before the third and of three possibilities after the third. I can see how they resemble one another, and how they differ amongst themselves.

Let us take the example of the number of instances or forms of the noun or its equivalent. From an arbitrary point of view, let us try to stay with a phraseology as traditional as possible.

Let us say that N^1 always stands for the simple subject of the sentence or of the dependent clause(s). However, we also find that N^1 must be used in two other instances. The verb completer for the verb "to be" takes the same case, as a nounal, as the subject. Thus the verb completer, when a nounal, for the verb "to be" must be N^1. Further, there is another case where the noun or nounal is in the same case as the subject. The instance occurs where the verb completer is in the whole-part, or copulative, or linking, or state-of-being sentence pattern.

The four patterns predicated here are the "to be" pattern, the transitive pattern, the whole-part pattern, and the intransitive pattern.

We then give examples of each instance of N^1.

N^1 As the Simple Subject

The men are here today.
John's friends will be here tomorrow.
I will come to the fair.

N^1 As the Verb Completer for "to be"

He is a soldier in the model army.
They were men in every sense.
We are being excellent followers for the football team.

N^1 As the Verb Completer for the "Whole-Part Sentence" **

He remains a slave to his habits.
He has the measles today.
The United States contains wealth in every state.

We have indicated the nature of N^1, and we have given examples of N^1. It is the inescapable fact that we have more than one case of N^1. We could have simply listed N^1 and later given the three different cases.

We come to N^2, the direct object. There are three cases of this N^2. In the first case, we have the direct object following a verb of only one word. In the second case, we have the direct object where the verb is composed of more than one word. In the third instance, we have the direct object where the indirect object is also involved.

N^2 as the Direct Object When the Verb Has One Word

He kicked the step angrily.
Those men ran the race enthusiastically.
He took the examination willingly.

N^2 as the Direct Object When the Verb Has More Than One Word

He turned off the faucet.
He pulled down the curtain in the morning.
He threw open the shutters.

N^2 as the Direct Object When There Is an Indirect Object

He gave the Red Cross money.
John gave Jack a reward.
He lent Harry a hammer.

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Other terms for this Pattern Three sentence are "linking," "copulative," or "state-of-being."

N³ as the Indirect Object

She gives him expensive presents.
He gave the charity money.
He gave the girl a doll.

N⁴ As the Object of the Preposition

He was sleeping in the forest.
He have the book to her.
He was lost between Alpha and Beta

N⁵ As the Appositive

A friend, Mike Jones, is in town today.
His favorite exercise, sleeping, keeps him fit.
They returned to their residence, the house on Ninth
Avenue.

N⁶ as The Noun to the Left of a Noun or Nounal

The gold ring was his favorite ring.
The chrome fender was his delight.
The new car dealer was quite successful.

We put them all together :

$$N^1$$

N^1 ss	Those men are here today.
N^1 vc "to be"	He is a soldier in the model army.
N^1 vc w-p.	He remains a slave to his habits.

where ss= simple subject; vc = verb completer; and where w-p =
(whole-part or linking, or copulative, or state-of-being.)

$\underline{N^2}$

	N^2_{sw}	He lofted the ball into the air.
	N^2_{vprep}	He turned off the faucet.
	$N^2_{o_i}$	He gave the girl a ticket for the play.
$\underline{N^3}$	N^3	She gives him expensive presents.
N^4	N^4	He was sleeping in his science class.
N^5	N^5	Jack, the baker, was kneading his dough.
N^6	N^6	The iron stove shattered.

Where sw= single word; vprep = verb = preposition; and o_i = indirect object.

$$* * * * * *$$

If we so desire, we may bring in another N, as N^7. N^7 can be broken down into the subjective complement and the objective complement.

COMPLEMENT

Subjective   Complement

The boy is now a <u>student</u> at a larger university.

However, we have a problem here. What we would call N^7 happens to b be N^1 because it is a noun or nounal completing the verb "to be."
It is not a good idea to call the same word in the same place at
the same occasion by two different numbers.   Perhaps it would
be well to leave <u>student</u> as N^1. !

_____ Objective Complement

They make him the <u>leader</u> every year.   Here, "leader" is called
the objective complement. However , there are many good arguments
for saying that <u>leader</u> is somewhat in apposition to "him." In
such reasoning, we would say that it might be a good idea to
keep "leader" for N^5!

Whatever the decision, there would seem to be some value in
looking at all of the possibilities-- ROPE- at one time.

It is well to be able to see the   limits and the possibilities
in the use and usage of the nouns or nounals. When we use
the term"nounal" we have in mind nouns used as nouns and
other parts of speech used as a noun. In the sentence
" Sleeping is a good form of exercise," "Sleeping" is a verb
used as a noun, hence, for our purposes and ways of defining,
a "nounal."

Again, one of the problems is that a term may be divided or
subclassified. When we deal with N^1, we find that we have a
noun or nounal which is broken down into three uses or
subcategories. Without dwelling on such terms as the "predicate
noun,"we simply say N^1 as the subject, N1 as the verb completer
for "to be," and N^1 as the verb completer for a whole-part,
copulative, linking, or state-of-being verb when these terms
are entirely synonymous.

It is true that further subdivisions or further breaking down
from larger to smaller units must be done to gain a complete
understanding. However, it is best, we believe, to show the
major boundaries or divisions. We are more interested at first
in seeing differences among the various $\underline{N}$ numbers. We will
later be more interested in showing differences among the
numbered N items.

It may well be that placing too much emphasis, at first, on
differences among   the subclasses of N^1 will prevent our looking
carefully at differences among N^1, N^2, N^3,...........N^n.

It is better to set the wider limits first.   Then, having set the
wider limits, the next step is to ensure that the differences
among the wider limits are understood. Then we can take a look
at each kind or sort of N.   In being somewhat repetitious about
this matter, we are trying to drive home the fact that too
much detail within a class may well keep a student's attention
within the class where the view should be more panoramic at first.

In teaching the larger structures of N, one should spend
considerable time in ensuring that the major structures are
very well understood; the structures on this level should be
overlearned.

Certainly, no phase of English is more important than the
matter of nouns or nominals. The "N" world is that which we talk
or write about, the reason for engaging ourselves in the first
place.

R.S. Wendelson: " The Private Language" Today

There is the universal language for a language -speaking
community, such as English. This universal language can be
found in the dictionary in terms of words understood by a large
segment of the people using such a language. There is also
a private language. Many of the words of the private language
can be found in the dictionary. Many of the words in the private
language have restricted meanings. Some of these words are in
the dictionary; some are not. Some of the language items may
not be words, but acronyms. A word does not mean, but a word
does carry meaning. In fact, nearly all words carry more than
one meaning.

With a more specialized world at hand, we have not increased the
number of words as much as we have increased meanings carried by
the same word. We should understand the dictionaries are not
brought "up-to-date" every few months, or so. It may well be that
in the future the dictionaries may carry special sheets or
flyers indicating new words and an increase range of some old
words. Modern technology including a more sophisticated
way of handling the language may result in more contemporary
dictionaries.

One has only to consider many modern textbooks in different fields
to note that such books tend to have a special glossary.The terms
are set out, and the reader is invited to consider what
meanings such terms carry for this particular book.

If the reader does not engage in this word game, he will not
understand the text since the text is predicated, as to carrying
information , on an agreement that certain words have certain
meanings for that text and for that text alone.

It is not surprising that such a precise and exact science as
that dealing with data processing and computer prgramming
should have such a special glossary, such a private language.
However, many of the terms that are found in the dictionary
are also found in a different context in computer programming
and data , processing. For the purposes of this article, a
discussion of this matter of private language will do as well
with the language of business data processing as will such
other disciplines as journalism, mathematics, or political
science.

We come to such an ordinary word as "address" which, tradition-
ally can be a noun or a verb.   As a noun, the meaning could
refer to a set speech or to the 'residence of an individual.

Used as a verb, the word would carry the idea of speaking
to an assemblage or of con œntrating on a particular problem
or person. In the data processing context, the meanings are not
unrelated.

"Address" refers to a number, symbol, name, or label identifying
a register or location or a cell where information is stored.
There is the note of "location" still present in the meanings.
Then we have "absolute address" which is an instruction in which
the address portion of the instruction is the operand itself
rather than the address of the operand. This address is also
called "zero-level addressing. Then we have "indirect address"
which is an address that references a storage location containing
the address of the operand needed. This is in contrast to direct
addressing in which the address references the location of the
operand. Then, finally, for the present, at least, we have "rela-
tive address". This is an address translated into an absolute
address by adding a base address to it. If, for example,
a relative address were 390 and the base address were 4000, the
absolute address would be 4390.   Then we have the term "bit."

I leave it to the reader to have in mind a range of meanings
for "bit." Keep in mind such obvious meanings as the piece
of metal for a horse, a small amount. When we come to the
gloassary for computer programming, we find that a bit is
"an abbreviation for binary digit. Then we have a "check bit."
A "check bit" is a bit added to a group of binary digits in order
to detect the loss of a bit from the group during processing. Also
called a "parity check." In odd-parity check, for example, a 1-
or 0-bit is added to a group of digits to make the number of 1-bits
odd. Then, to cap the matter off, we have "the zone bit."
Here we find that two bits added to the four bits in a binary coded
decimal group in order for the group to represent alphabetic and
special characters. These are represented by a combination
of zone and numeric bits. After a while this sort of thing can
be a "bit" of a nuisance.

We have the dictionary carrying meanings through a certain time
and place. Perhaps in order to keep the familiar sounding word
we prefer to use old words for new meanings. At a certain point
this becomes troublesome when the old word has to wear or to
carry so much more weight of meaning(s).

Yet, in such rather precise areas as business or science, the
words do carry some interrelatedness with other more common
meanings. We consider the term "instruction." "Instruction"
is a word or part of a word that tells the computer to perform
some operation and identifies the data or unit of equipment to
be used. Then we have "instruction code" which we understand is
an artificial language for expressing or describing instructions

that can be carried out by the computer. The "macro instruction"
is an instruction translated into a set of object language
instructions for performing the operation specified by the macro.
The "one-address instruction" is an instruction with an operation
code and the address for one operand. Then "symbolic
instruction" is an instruction using a symbolic operation
code and symbolic address. It is translated directly into a
single machine-language instruction.

Finally, for the present, at least, there is the " two-or-
three addresses   specifying operands and/or the address where
results are to be stored.

We could go on and on. The point is that the common words used
so frequently over so many years   are still with us in converse
and in the dictionary. However, we have piled meaning after mean-
ing on them. It is to be hoped that the sheer weight of
meanings will not result in long clarifications each time a
word is used.

Of course, the matter of what can be said in context must come
to our aid. There is always the problem of deciding whether to
use more specific words that must be brought into being in the
language or whether to use the common words and give more or
less private and specific meanings in addition to the few
already carried and tested.

PRONOUN STRUCTURE IN A FAREWELL TO ARMS: An Application
of a Philosophic-Linguistic Insight

Many of the insights of the philisophical linguists, the
so called logical positivists, should be of value to any
teacher who has stressed the exploration of terms whose
meanings are more or less taken for granted.[1]   However,
these linguistic insights have not, to my knowledge, been
consulted as tools for literary analysis and it is the
purpose of this paper to use a particular insight of one
philosophical linguist and thereby encourage further
reference to these linguists as sources for literary
analysis.   The particular insight I will use is P.F.
Strawson's theory of identification in his work, Individ-
uals,[2] and I will apply it to Hemingway's use of the
pronoun 'they' in his novel, A Farewell to Arms.   But
first I would like to stress the precise role of Strawson's
insight in my literary analysis.   While reading Strawson,
I was already quite familiar with Hemingway's novel
and had, somewhere in my memory, the idea that Hemingway
had relied heavily on the use of 'they' to advance the
theme of determinism.   What Strawson's theory of identi-
fication did was to send me back to Farewell with a theory
by which I could explain in an orderly way the use of
'they' to advance the theme.

Strawson defines identification as an element which is
determined by tests which the hearer applies to a speaker's

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[1] I have in mind such insights as those offered by
Witgenstein in his Oxford lectures in 1930-33 in which
he examines the meanings of such terms as 'red.'   Addi-
tionally, those offered by A. J. Ayer in Language, Truth,
and Logic.

[2] New York: Doubleday and Co., 1959, pp. 2-49.

Pronoun Structure in <u>A</u> <u>Farewell</u> <u>to</u> <u>Arms</u>.

discourse, tests involving the hearer's knowledge of what
particular thing is being referred to by the speaker.
He cites four types of identification: story-relative,
demonstrative, non-demonstrative, and private. Story-
relative identification takes place within a story
but not within history. Strawson uses the following
example: "A speaker tells a story which he claims to
be factual. It begins: 'A man and a boy were standing
by a fountain', and it continues: 'The man had a drink'.[3]
The man is identified within the story as the man who
was standing by the fountain with the boy. But he is
not identified within history, that is, within <u>our</u> world
of spatio-temporal relations. Therefore, further identi-
fication is required to place him within that world.
Demonstrative identification accomplishes this because
through it the "hearer can pick out by sight or hearing
or touch, or can otherwise sensibly discriminate, the
particular being referred to, knowing that it is that
particular."[4] Non-demonstrative identification takes
place when the particular to be identified is not within
range of the senses. On such occasions the speaker,
though he connot demonstratively identify the particular
to which he is referring, can identify it "by a des-
cription which relates it uniquely to another particular
which can be demonstratively identified."[5] A private
identification takes place when the speaker supposes
"that 'here' and 'now' and 'this' and all such utterance-
centred words refer to something private and personal
to each individual user of them."[6] Unlike both demonstra-
tive and non-demonstrative identifications which pose
a system independent of the speaker, private identif-
ication argues that the system is within the speaker.

Armed with this simplificatqon of Strawson's insight
I was able to classify the uses of 'they' in <u>Farewell</u>
in a manner acceptable to its major theme, namely, that
man is confronted with a universe of which he has
a limited knowledge and by which he is eventually de-
feated. The classification begins with the assumption
that must accompany the reading of all novels: that

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[3]
[4]p. 5.
[5]p. 6.
[5]p. 9.
[6]p. 19.

Pronoun Structure in <u>A</u> <u>Farewell</u> <u>to</u> <u>Arms</u>.

the author (Ernest Hemingway) is attempting to go beyond story-relative identification by having his narrator (in this case narrator-hero Frederick Henry) make references which will make the story significant to <u>our</u> world of spatio-temporal relations. In <u>Farewell</u> demonstrative identification is often used and, as in other instances, I cite only a few instances here:

> Troops went by the house and down the road and the dust <u>they</u> raised powdered the leaves of the trees.
>
> Ten cars were lined up side by side under the long shed. <u>They</u> were top-heavy, blunt-nosed ambulances, painted gray and built like moving vans.

Non-demonstrative identification is also used in <u>Farewell</u>:

> "I won't. How often will you write?"
> "Everyday. Do <u>they</u> read your letters?"
> "<u>They</u> can't read English enough to hurt any."
> "<u>Next</u> year will be worse," the major said. "Perhaps <u>they</u> will attack now. <u>They</u> say <u>they</u> are to attack but I can't believe it. <u>It</u> is too late. You saw the river?"
> "Yes. It's high already."
> "I don't believe <u>they</u> will attack now that the rains have started."

Finally, <u>Farewell</u> has private identification expressed through 'they'.

> "I'm not brave any more, darling. I'm all broken. <u>They've</u> broken me. I know it now."
> "Everybody is that way."
> "But it's awful. <u>They</u> just keep it up till <u>they</u> break you."

Within this triple structure of pronouns and their antecedents there is a movement out of the clear-cut spatio-temporal system of the demonstrative identification into! the less specific non-demonstrative system and culminating in the indefiniteness of the private identification. In the first instance, particulars are recognizable because of their definite locations in the system. <u>These</u> particular cars in <u>this</u> particualr shed at <u>this</u> particular time, the past. The antecedents of 'they' are always clear, immediately clear. This is not true of the use of 'they' in non-demonstrative identification. The things to which 'they' refers are in the context of the book but there is no immediate grammatical relationship

Pronoun Structure in <u>A Farewell to Arms</u>.

between the pronoun and its antecedents. Nevertheless,
the antecedents are recognizable because of their associa-
tion with things which are present to the senses. Thus,
the 'they' who will attack has no grammatical antecedent
but is identifiable as the enemy because of its associ-
ation with elements which the reader <u>can</u> "sensibly dis-
criminate:" the rain, the river, the major who is obviously
on the side of the speaker. 'They' in this case has no
antecedent either in the same context, as it does in
demonstrative identification, or even within the novel,
as it does in non-demonstrative identification. Its
reference is not to a spatio-temporal world but to a
system residing within the mind of the speaker (Freder-
ic Henry). The major characteristic of this is a cruel
and arbitrary power and it is abstracted from the objects
referred to by the other two uses of 'they'. Further,
it is used by the speaker to express the deterministic
nature of the universe. The following quotations and
discussion will, I hope, clarify this.

> Everybody said the French were through. Rinaldi
> said that the French had mutinied and troops marched
> on Paris. I asked him what happened and he said,
> "O, <u>they</u> stopped them." I wanted to go back to
> Austria without war. I wanted to go to the Black
> Forest. I wanted to go to the Hartz Mountains.
> Where were the Hartz Mountains anyway? <u>They</u> were
> fighting in the Carpathians.

> "I won't How often will you write?"
> "Everyday. Do they read your letters?"
> "They can't read English enough to hurt any."

> "How are you, baby? How do you feel? I bring you
> this - " It was a bottle of cognac. The orderly
> brought a chair and he (Rinaldi) sat down, "and
> good news. You will be decorated. <u>They</u> want to
> get you the medaglia d'argento but perhaps <u>they</u>
> can get only the bronze."
> "What for?"
> "Because you are gravely wounded. <u>They</u> say if you
> can prove you did any heroic act you can get the
> silver. Otherwise it will be the bronze. Tell me
> exactly what happened. Did you do any heroic act?"

In all of these quotations the objects to which 'they'
refer can be identified though there are no antecedents.
Yet its use is highly suggestive. In the first passage
it refers to an authority which apparently has great power

Pronoun Structure in <u>A</u> <u>Farewell</u> <u>to</u> <u>Arms</u>.

Supposedly, French soldiers had mutinied. But who had
stopped them? The officers? The diplomats? The military
police? In the speaker's mind it is unimportant and the
reader is left with the impression of a vague but powerful
force which is capable of quelling such rebellions.
The second 'they' in the passage has a direct reference
to fighting men but contains a vague generality. In
the second passage the pronoun is used to create an
atmosphere of fear. 'They' exist on the periphery of
the lives of the characters but possess a power to interfere
with their intimate actions. In the third passage
'they' refers to a force somewhat benevolent, a force
which wants "to get you the medalgia d'argento" but
somewhat limited in its power since it may be able to
"get only the bronze." A moment later in this passage
the pronoun refers to a tribunal to which things must
be proved. If it wishes to bestow a silver it can do
so, but it may just as readily bestow a lesser medal.
Shortly after this 'they' refers to a military operation,
"They take a thousand prisoners." In this case the pro-
noun refers to a force with heroic power performing
great deeds in battle. Quite in contrast to this is
the last use of 'they' in this passage when Rinaldi
observes that "For two weeks <u>they</u> haven't changed them,"
referring now to whatever authority is in charge of
bringing in new prostitutes.

These examples will serve to indicate that 'they' almost
invariably refers to an antagonistic force and yet assumes
a pattern of references which is shifting, vague, and
ambiguous. This pattern is of great value in the closing
sections of the novel when the narrator-hero makes the
majority of his private identifications. A fugitive
from the army, separated from friends who have been killed
or maimed, confronted with the suffering and possible
death of his mistress, he attributes his and the world's
troubles to a power which has its existence within his
distraught consciousness. It is a power which forms
a deterministic world in which men's lives are disposed
of arbitrarily, cruelly. 'They' killed you "when they
caught you off base" or 'they' killed you gratuitously,
the narrator notes, or, if they didn't kill you, they
gave you syphilis. No scene more vividly emphasizes
the privacy of this identification than one almost at
the close of the novel. Realizing that Catherine may
die in childbirth and that neither he nor she can expect
mercy at 'their' hands, he recalls an experience in his
youth when ants had swarmed on to the cool end of a log
which he had been burning. He recalls that he hadd had
a "splendid chance to be a messiah and lift the log

Pronoun Structure in <u>A</u> <u>Farewell</u> <u>to</u> <u>Arms</u>.

off the fire and throw it out where the ants could get
off onto the ground." But, like the 'they' who inevitably
destroyed or maimed you, he simply adds to the agony
of the ants by throwing water on them and steaming them
to death.

In conclusion, I have tried to show not only how a
particular grammatical form, a pronoun, can be used to
strengthen a literary theme but, also, how a philosophic-
linguistic insight can aid in this type of analysis.
In this instance the insight provided the following:

     1) It supplied a coherent framework which included
both a consideration of the referential nature of certain
grammatical forms <u>and</u> the nature of the systems to which
they refer.
     2) Because it is based in a speaker-hearer relation-
ship the insight was adaptable to the narrator-reader
relationship of a literary work.
     3) It supplied a terminology adequate for <u>its</u>
purpose and simultaneously in harmony with the practice
of describing the narrator's capacity for being objective
or subjective in his narration. It was of particular
value here for a number of critics have referred to
<u>Farewell</u> as a lyric (subjective) novel without offering
evidence to support this claim. Use of Strawson's classes
of identification leads to the conclusion that though
there are **many** demonstrative and non-demonstrative identi-
fication (subjective in nature) which is the major source
of the deterministic theme. Therefore, we can be sure
that at least one structure in the novel, that of a
particular pronoun, supports the claim that <u>Farewell</u>
is a lyric novel. Thus, Strawson's insight justifies
the literary student's concern for a literary meta-
theory, that is, the student's search for and use of any
knowledge relative to the analysis and evaluation of
a literary work.

A Few Basic and Preliminary Requirements to Discussing Slotfilling
"Slotfilling" is defined for my purposes as filling places
in the English sentence to the right of the simple subject and to
the   left of the simple subject. and to the right of the verb
and to the left of the verb.

These places occur because in the English language, as well as in
other languages, the : simple subject is given more detail
through our mental processes, and the verb is given more detail
through these same processes.

In other words, the human mind sets out a simple subject which
must be a thing, idea., event, institution, place, or some animate
item. At this point I shall confine my observations primarily
to English. (There are certain languages which   indicate that
those who use them do not look at the world through the
same categories used by English-speaking people.) In the English
language what is spoken about, in its simplest terms, is the
simplest subject--indicating why the matter was brought up in the
first place. Then, in the world of predication we comment about
the verb. By way of review, it might be well to point out
certain "basics", with the admission that some of these basics
may be otherwise stated by other linguists.

First, I define an English sentence as that "word or group of words
followed by a fade-fall of the voice on a rising or falling note."
If the word or group of words does not end on a fade-fall--
strictly -speaking "fade-out"--of the voice on a rising or falling
note--there is no sentence.

I consider a basic or kernel sentence in English to be a sentence
which cannot be broken down into two or more other sentences,
as one requirement.   Such a sentence always follows the order
of subject-verb-verb completer- and optional adverbial, as
another requirement. A basic or kernel sentence does not
admit any variation from the order just stated. The use of
"no","not", or other direct negatives would indicate that the
sentence is not basic or kernel.

Any variation from the order stated must result in a transformation
whether the variation involves shifting words, phrases, or
clauses. Thus , a transformation. is any variation from the
strict sequence of the subject--verb, verb completer, optional
adverb sequence. (I consider that a word in English is defined
in terms of a phonemic combination carrying a primary stress and
at least a vowel.

Now, if a word cannot be broken down into two or more other or
simpler words, such a word is called a "free morpheme.
A "bound morpheme" is considered to have a structural unit which
carries meaning(s) for a language but which must be "bound" or
"joined" to free morphemes or to bound morphemes to obtain the
specific meaning. Words, then, in English--and in many other
languages-- consist of free morphemes, free morphemes and bound
morphemes, or combination(s) of bound morphemes. Morphemes
refer to meaning and phonemes refer to elements signalling
changes in meaning. "If I start with the phonemic combination
which happens to be the word "cat" and shift to the combination
"bat", the b. sound has indicated a change in meaning.

There are some forty-five phonemes in English. That is, there are
forty-five units which signal both the presence of meaning and
changes   in meaning. The number varies for different languages.
The phonemes that can be represented graphically as vowels,
consonants, or diphthongs number thirty-three. There are
twelve other phonemes. Four of these are for pitch. Four are for
stress. Four are for junctURE.

Pitch for English can be expressed in terms of <u>low</u>, <u>normal</u>, <u>high</u>,
and <u>very high</u>--with the last seldom employed. Stress is indicated
as <u>primary</u>, <u>second</u>, <u>tertiary</u>, and <u>unstressed</u>. Juncture is viewed
as being closed, open, level, and terminal.

Insofar as "stress" is concerned, I make only the comment that
the term <u>unstressed</u> is somewhat misleading. It is scarcely
possible for the term to have no stress at all. We can view the
term most profitably in the sense of its indicating that in
order to have a phonology of a language, every element would
need some articulation. Even the <u>silent</u> elements are simply
not without stress effects.

In taking a quick look at <u>juncture</u>, I will define the kinds of
juncture briefly. <u>Closed</u> indicates that there is no substantial
cut in the speech stream. Thus we are able to keep syllables
together to have words. In <u>open juncture</u> there is the cut in the
speech stream to enable us to separate words, for example. In the
<u>level juncture</u>, the elements of the sentence are kept from
fragmenting. They are kept from fragmenting by the use of the
comma, the semicolon, the colon, and occasionally, through the
use of parentheses or the dash. In short, the use of internal
or level juncture serves to keep the voice from fading out before
the sentence value of the statement has been completed.
<u>Terminal juncture</u> is the kind of juncture which reveals the
nature of the closing of the sentence value utterance. In the
broadest sense, the two main types of terminal juncture are those
of the <u>fade-rise</u> and <u>fade-fall of</u> the voice.   The reader is
aware of the kind of punctuation required at the end of sentence-
value statements.

It is customary to use certain symbols for various academic
disciplines. Not all individuals within a discipline use the
same ··symbols; However, in Linguistics, as in nearly all other
disciplines, the variations are not as dramatic as may at first
seem apparent.

The definitions of the phoneme and morpheme as set out here
are quite standard. The definition of the sentence given here
may be somewhat unique. However, I support the definition since
it will cover all instances of human sentence-value expressions
and since it does justice to the phonology inherent in grammar.

I approach the matter of definining grammar through indicating
its elements _morphology_, _phonology_, and _syntax._ It would seem
that any definition of _language_ does stress the matters of
system, articulation, and wide and accepted usage by a very large
number of people. There are so many differently-stated definitions
of language that I will not lay down a precise statement on the
matter. However, I do suggest that any definition which does
not indicate that at the very least "Language is a system of
articulated sounds....................." may have some problems ·.·
with it.

In _morphology_ we are concerned with changes within the word.
Morphological changes are quite complex if looked at in
detail. However, for the most part morphological changes are
·seen in terms of inflectional endings or internal changes.
In the following set of sentences, we can see inflectional
changes:

> I run.
> I am running.
> He runs.

An example of internal modification is seen in "The bell
has been _rung._" We have internal modification in _ring_ , _rang_,
and _rung_ . In nearly all instances the morphological changes
come about through the phonology of the language. It would
seem as though _sound_ has its first claim. In _syntax_ there is
the matter of word , phrase, or clause order. We cannot use
the adverb of time before the adverb of place. We must place
ordinals before cardinals. Adjectives of shape must occur closer
to our nounals than adjectives of size or age. Certain
verb markers must always appear in positions right or left
relative to each other. It must be stressed that phonology,
syntax, and morphology do not for each operate independently of
one another.

Their _interdependent_ operations show the grammar of a language
in action. The grammar of a language is that which can be
said or represented through that language. It is well that the
·grammatical potentialities of a language must greatly
exceed what nearly all people use of that language.

I believe that we have an overview of the elements needed to
discuss the kernel or basic sentence.   It is customary
to indicate that a basic English sentence has four positions
or fills four positions.

T he first position is for the complete subject. The second
position is for the verb and its markers or auxiliaries .
T he third position is for the verb completer, and the fourth
position is for the optional adverb.

Now, in this basic or kernel sentence, the first position , as
indicated, is filled by the complete subject. Positions Two, Three,
and Op tional Four take care of the part of the sentence that
is not the Complete Subject.

It is customary to call all that is not the complete subject
the Verb Phrase. It is customary to call the subject the : ..
Noun Phrase. At least this beginning is the usual method for
approaching the sentence.

Thus, there is nearly always the initial equation

$$\text{S} \longrightarrow \text{NP} \quad \text{VP}$$

Here we are told that a basic sentence having the order of
subject, verb, verb completer, and optional adverb is
expressed by saying that for this sentence , the   elements are
the subject,on one hand, and the verb, the verb completer,
and the optional adverb on the other hand.

The arrow with the point to the right may carry such meanings
as consists of , may be divided into , may be broken down into,
or is made up of. Thus we could say that a basic sentence is one
made up of the subject as NP and the rest in the order stated
as VP.

We must realize that the subject occupies only one position.
T he verb phrase, or the rest of the sentence, occupies the
other three positions.

The following example   should make the matter clearer.

Positions

1	2	3	4
The men	could have run	the race	yesterday.

I am at the point, I believe, where we can next take an intense
view of slotfilling.

Dr. Lewis W. Barnes, Editor   Volume X, Numbers 11, 12

Slotfilling: Parts I & II

The English sentence is the truly functional unit of the language.
Whether the statement results in a long set of words having
a subject, verb , verb completer, and optional adverb(s) or whether
the sentence is a word only-- as in Amen! -- people who speak
English generally operate along the lines of sentence utterance(s).
Such will normally be the case whether the speaker has much
formal study--in school systems--or whether he simply learns
from his immediate daily language contacts.

I believe that we would do well were we to start from the point of
view of what language must do for us. Language must be involved
in communication. I consider communication to be that element
whereby what is in the mind of the speaker or writer is understood
by the reader or listener in much the same way as it is understood
by the speaker or writer. As has been pointed out in this
bulletin several times by different writers, Communication does
not mean agreement in the sense of saying that the listener
agrees with the speaker. Agreement, for my point of view, as
far as communication is involved carries the meaning that B
understands what A has asserted or stated. Probably, A understands
also that B has understood--although such is not always the case.
Then language is used for expression.

I consider expression to be that element whereby the speaker
or writer is more concerned with his own release of his emotions
than he is with whether the listener understands the speaker's
statements or expressions. In a way, one must admit that the
speaker could use expressive language to communicate his emotive
reactions. The speaker can also use expressive language to
communicate some matter which he wishes to have the listener
understand as he, the speaker, understands the matter. In such
a case, there is always the question whether the speaker has
achieved his goal. For example, the speaker may use quite
expressive --or emotion-evoking--language and find that he has
"communicated" his emotions or attitudes when he meant to communicate
his beliefs, not his attitudes.

It is possible that Speaker A may be teaching Listener B some
theorem in geometry. Speaker A may be carried along by his emotions
to the extent that his expressive language may be much stronger
than his desire to communicate the basic elements in the theorem.
It is also possible that A's tone may be charged with enough
expressive language to enable Listener B to learn the theorem
effectively.

Nevertheless, the main distinction between communication and expression is that the latter uses language structures far more likely to evoke emotion or to express emotion than to cmmmunicate a fact, an opinion, or a thought.

Of course, I must point out that I may make a simple statement that I consider communicative as to intent and language /structure. I may assert, quite seriously, " December 17 will fall on a Monday." It may well be that the listener has a built-in attitude about Monday, any Monday. This attitude, positive or negative, may be so strong that the date itself may well be ignored. Again, someone might ask me the question "Did you know that Jones is a Democrat?" The informative or communicative value may be lost if my feelings about; about "Democrat" are strong, one way, or the other. Then there is the matter of "communion."

By "communion" I mean that langaage is used for its own pleasure as such. There is no desire to communicate to anyone- other than, perhaps, to the self. There is no desire--at least, no conscious desire-- to release my emotions about any matter for myself or to anyone else. I simply wish to concern myself about my own feelings.I want to dilly and dally with the sounds of the language. I want to see what can happen to my own pleasure or displeasure by playing around with actual or potential sound combinations. I rather imagine that many of the tongue-twisters and palindromes have come into being for a communion-like attitude toward language.

Now that I have indicated what I "mean" about communication, expression, and communion, I assert, again, that the human minds of necessity as belonging to human beings must find the language combination(s) or potential to accommodate these three elements. Considering the complex workings of the mind it would be only just to assert that any given language does do a rather decent piece of work in enabling individuals to communicate, to express, or to commune.

As more and more reliance is placed on other ways of communica- ting than through gestures blows or signs, we need to place more emphasis .on finding more effective ways of using some of the potential and actual of the language more effectively.

In order to do this, we must first try to understand what is really available to us in the English sentence. How does the English sentence really operate?We will agree that we can assert, affirm, deny, question, and command through its structures. Yet, we need to have more awateness of the structures.I have pointed out in the last two numbers certain elements of the sentence and certain elements of the parts of a sentence as I view them.

What do I mean by "slots?" I mean that there are places in
the English sentence for different kinds of words and for diff-
erent parts of speech.

In the English sentence, it would seem as though order is quite
essential. We can move certain kinds of words around or certain
classes of words, but such a movement is limited.

The adverb can be moved more freely than any other part of
speech in English can be moved. Such an observation is also true of
many other languages than English.

If we agree that you will let me confine myself to the basic
or kernel English sentence as a "start," I will focus on the <u>simple
subject.</u> The "simple subject " is that word or set of words
through which we want to make an assertion. Now, the words
do not mean, but they carry meaning. They stand for something,
some event, some person, some institution, or some idea I have
in mind or at heart. * They assert something about <u>experience.</u>
Generally, the simple subject consists of a simple word   as
in each of the following sentences:

> John's <u>friends</u> are here.
> I am <u>willing</u> to take a stand on that issue.
> Those <u>students</u> support their opinions strongly.
> The <u>first</u> of the brave soon went under fire.
> The <u>first</u> twenty-three "<u>volunteers</u>" left today.

Occasionally, the simple subject will have more than one word
as in the following examples:

> The <u>twenty-five</u> went reluctantly forward.
> The <u>Rocky Mountains</u> are formidable obstacles.
> The <u>Three Happy Spinters</u> is the name of the cottage.

Then, the simple subject is that which impels a person to
speak or to write about some aspect of experience. The subject
is generally one word, and that word does not have to be a pure
noun.

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   Experience is that which is strong enough to impress
itself on the human mind. The stuff of experience is that which
fills the categories of people, things. institutions, events, and
ideas. Perhaps one could and the categories of time and or space.
For the most part experience must take place in time and space.
In some instances <u>time</u> or <u>space</u> can be the experience itself.
The definition of a <u>thing</u> is that which occupies space and is
subject to the pull of gravity. One would agree that a thing can
be divided into the <u>animate</u> or alive-- or into the <u>inanimate</u>, or
non-living.

I have the strong feeling at this point that I should
stop or even digress to try to settle the question of the noun.
I believe that nearly all of us will agree that a noun,
while variously-defined. is asserted to be the part of
speech which is the name of a person, place, or thing.

It seems as though the "thing" part of the definition is
one of the problems with that definition. Thing is not
quite good enough for a scientific era. Left out are
events, institutions, and ideas. Even though we might add
"ideas" to the old definition, we still face the problem
of dealing with events and institutions. I doubt that
throwing ideas, events, and institutions in the category
with thing is good enough for today.

It must be noted that some of our parts of speech are defined
by structure and some by function--- that is always a problem.
The noun, as distinct from the others, has been defined
in a philosophical sense. How can we define a noun by
structure? We do know that a noun has more than one function.
We will see that a noun does function in a unique way one
place to the left of another noun or to the left of another
part of speech which is used as a noun. In the sentence
"I must go home Wednesday; we find "Wednesday' functioning
as an "adverbial.

A number of examples can be given to show that one part
of speech can have more than one function. It is my position
that all parts of speech must be defined by structure and that
all parts of speech can be defined by structure. Any question
as to any part of speech should have two parts, at least.
One part should relate to what the part of speech may be by
structure. The other part should inquire into the nature
of the part of speech by structure.

The task of defining a noun is not easy. We cannot get by
with stating that a noun is the part of speech which
is the subject of the sentence or the direct object or the
object of the preposition. Of course, a noun may be the
subject of the sentence the direct object, or the object of
a preposition. However, consider the following sentences:

> Running demands good heart capacity.
> The Sobriety Club condemned drinking.
> They were the first in complying.

In the sentences set out, running, drinking , and complying
are verbs. A verb may function as a noun. A verb may
also function as an adjective, as we shall see in slotfilling.
Now, then, there is no problem with the simple subject
because the simple subject may be another part of speech
other than the noun. However, that other part of speech, as
a nounal, must function as a noun.

Because the simple subject is our most pressing concern,
let us first consider all of the slots to the left and
right of the simple subject.

By way of introduction and by way of setting the limits,
let us state that there are two slots to the right of the
simple subject; these slots are for the adverb and for the
prepositional phrase. A little later we shall see that
a recursive rule runs for these two slots. They may be
repeated again and again in some alternate fashion.

To the left of the simple subject, we shall see that there
are five main places or slots, according to our current or
present knowledge.The first slot to the left of the simple
subject is for a pure noun the second slot to the left is for
the adjective: or adjectival ; the third slot to the left
is for postregular determiners the fourth slot to the
left is for regular determiners; the fifth slot to the left
is for the _preregular determiners.

Some of these slots have subslots. That is, these slots may
be broken down into smaller units. There are several subclasses
of adjectives. There are four subclasses of the postregular
determiners. Such is also true of the regular determiner.

We shall call the simple subject   SSjt . The symbol--
carries the meaning "to the left of." Parentheses carry the
mean of 'optional.'   Optional indicates that the slot does not
have to be filled, however if the slot is filled, it will be
filled by the item as defined and designated.

The first slot to the left of the simple subject   is for
a pure noun. This slot is designated as (SSjt -1).
(I shall open the next number by defining the "pure noun.)

The second slot to the left of the simple subject is for
the Adjectives or adjectivals This slot is called (SSjt-2.)
It can be seen that this slot carries the optional tag.

The third slot to the left of the simple subject is for
postregular determiners and carries the tag (SSjt-3).
It can be seen that this slot is also optional. The fourth
slot to the left of the simple subject is marked as SSjt-4.
Because this slot does not have the optional signal, the slot
must be filled . The fifth --and final-- slot to the left of
the simple subject is that of the preregular determiner
numbered (SSjt-5).

It can be seen now that in the complete subject there are five
slots to the left and two to the right. The only slots that
need to be filled in a complete subject in the sentence whose
order is Subject-Verb-Verb Completer, and Optional-Adverb are
SSjt and SSjt-4. The latter marks the place of the determiner.

Dr. Lewis W. Barnes, Editor   Volume X, Numbers 13, 14

Slotfilling III & IV   The Nature of the Noun and Slots
(Ssjt and Ssjt-1)

In our last issues, I pointed out that the simple subject in
English--and in other languages--need not be a noun. However,
the simple subject must be a word used as a noun. At this
point it can be seen that we are talking about structure and
function. A noun can function other than as a noun. Other
parts of speech can function as a noun.

I have indicated that the slot to the left of any noun can be
filled by a noun. Now, this noun must be,unlike the simple
subject, a "pure" noun.

A pure noun is a noun which is a noun by structure and a noun
be function. I further mentioned that there is a real
problem in defining a noun. There is no question that a
noun does handle words that stand for persons, places, or
things. However, nouns also stand for ideas, events, and
institutions.

One problem is that some verbs, behaving as nouns, may also
stand for at least one of the elements not a person, place,
or thing. In the sentence "Thinking is difficult,"
"thinking" functions as a noun. However, "thinking" is a
verb by structure.

The task is to find a definition which is totally
exclusive with respect to all other parts of speech.
In other words, we cannot define if the definition is
common to other parts of speech. There must be at least one
pervasive distinction separating the noun from the other
parts of speech.

We cannot state that a noun is the part os speech which
is observed to have a regular determiner in a sentence which
must, if a kernel sentence, have a regular determiner.
(Regular Determiners come from the subclasses of the following:
articles, demonstratives, the genitive or possessive,
words behaving as articles, and null--∅.)

At first, it would appear as though the use of the article
before a noun would indicate that we have a noun. However,
in the sentence "My running is not that good," the simple
subject "running" is not a noun but a verb by structure.

adding
The statement that   "A noun is a word which forms a plural by
~s   or the equivalent"-- a rather standard definition--
will not do. As Gleason points out in Linguistics and English
Grammar

> Perseverance   may name a thing-- the
> application of the definition is unsure and
> probably incorrect. It does occur in typical
> noun positions in sentences; but it does
> not seem to have a plural. Cattle has the
> opposite trouble. It does not seem to have
> a singular, and it shows no evidence that it
> is inflected for the plural. *

There are many other words in English which are known
as "nouns" but which do not meet the test of forming a
plural by adding -s or its equivalent such words as quail
and deer, among others.

Then there is the suggested test of defining a noun by
structure as that part of speech which can answer the questions
more, fewer, or less . Certainly we can now make such state-
ment as

> There are fewer deer.
> There is more mercy.
> There is less energy present in this case.
> There are fewer battles in progress.

However, we now find that we can use "more" before some
adjectives and before some verbs. Consider the following
examples:

> The girl is more beautiful than I had anticipated.
> Fewer findings came out of the hearing than had
> been expected.

In the first example "more" stands before an adjective.
In the second example "fewer" stands before a verb which
functions as a noun.

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Gleason, Linguistics and English Grammar, N.Y.,
Holt, Rinehart and Winston, Inc., 1965, p. 116.

We can begin to see now why defining the noun is--and has been--
quite a problem.   We cannot use "plurality" exclusively.
We cannot guarantee that every noun can be made a plural.

Wᵉ cannot use the test of "more," "fewer," or "less"
exlusively--although each test will take care of the major
number of nouns.

Then we find that we cannot rely on the determiners to
take care of defining a noun. It is true that determiners
do stand before a majority of nouns.

Nevertheless, a decided majority will not define.As long as
there are other parts of speech which can answer to "more,"
"fewer," or "less" and as long as there are other parts of
speech before which a determiner can stand, the noun cannot
be defined.

We can define the noun, somewhat structurally, along lines
previously discussed. We can say that the noun is that part
of speech which stands for a person, place, thing, institution,
event, or idea.   However, we then have to know what meanings
are carried by persons, places, things, events, ideas, or
institutions.

Nevertheless,   ·there is a sufficient reliance on meaning
as to make the definition by structure somewhat tarnished.
It is true that we can say that a pronoun may stand
structurally before a noun and that a noun cannot be
structured to stand before a pronoun. However that is of
little help at this point. In order to reach the point where
we can distinguish or must distinguish structurally between
a noun and pronoun, we must reach the position where we have
been able to separate nouns and pronouns together from all other
parts of speech.

Let us try to make another effort, to take another tack.
Let us consider that the only possibilities for having
"more," "fewer," or "less" ₎before a part of speech will
come where that part of speech ·is one of the three: a noun,
an adverb, or an adjective.

It has been known for some time, as far back as the time of
the Greeks, that the adjective is the only part of speech
which can be sung with pure harmony. In English, every word
which meets the seems and/or very test is an adjective by
structure.

To make the test the word tested as an adjective is
placed before and after the verb:

> The yellow rose seems very yellow.
> The occasional encounter .seems occasional.
> The spontaneous response was very
>   spontaneous.

The reader is invited to try any other part of speech by
the same test. The only other structure which will yield
the same rhythmic response comes when one places an /-ing/
affix to a word, as in <u>exciting</u>. In the sentence "The
exciting adventure seems very exciting," the response is
close to meeting the rhythmic response. Many students at
first will consider the test as having been met. However,
the distinction must be made that in English any word ending
with the /-ing/ affix is a verb by structure.

Thus, any word which meets the <u>seems</u> or <u>very</u> test must be an
adjective by structure where that word is not an /-ing/
word. Now, we need to eliminate the adverb by making a
structural identification or definition. The adverb is that
part of speech which when moved from its normal fourth and
optional position, slows the speech of the sentence. The
adverb, then, is structured phonemically to slow the sentence
when moved to the left."

There is a marked change in the speed of the sentence when
the adverb is moved left. No other part of speech is so
structured. We have earlier stated that the first position
in a basic sentence is filled by the subject. The second
position is filled by the verb. The third position is filled
by a verb completer, and the fourth is filled by the adverbial.
In the following sentence, we have examples of locating the
adverb:

> His friends ran the race willingly.
> Willingly, his friends ran the race.
>
> He tackled the uncoming fullback savagely.
> Savagely, he tackled the uncoming fullback.
>
>
> He went to the committee meeting early.
> Early, he went to the committee meeting.

If the words are articulated clearly in each instance, it
will be seen that moving the adverb to the first position
slows the speech of the sentence markedly.

Even where moving the adverb will result in a change in
meaning, moving the adverb slows the speed of the sentence.
In the following two sentences changing the position of the
adverb does change the meaning:

> Janell found time moving ever so slowly.
> Ever so slowly, Janell found time moving.
>
> Jackson   found that the pace hurt the horse terribly.
> Terribly, Jackson found that the pace hurt the horse.

As separable from what happens to the meaning, moving the
adverb to the left slows the pace of the sentence.

If we look at the utterance and wish to see whether the
word which meets the test of"more," "fewer," or "less"
is a noun, we must eliminate any possibility   that the word
is an adjective or an adverb. A noun will not meet the
"seems" or "very" test. A noun when moved to the left will
not slow the speed of the sentence.   .

If the word being tested will accept "more," "fewer," or "less,"
and will not change the speed of the sentence when moved and
will not meet the test for the adjective, there is no question
that the word being tested is a noun by structure.

A pure noun is a word which meets the "more","fewer,"or"less"
test" but which does not slow the speed of the sentence when
moved and which does not meet the"seems" or "very" test.
I cannot think of any noun which cannot   be defined
structurally through this definition.

Sometimes a question will be posed in terms of a sentence much
like the following statement:

                  Columbus is a large city.

Now, there may be more or fewer "Columbuses." It will make
it easier to state that "Columbus" is a place and that we
can have more or fewer places. Then, too, "Columbus" is
a city and we can have more or fewer cities.

I believe, then, that we can define the noun structurally.
Now, I can go back to the matter of the subject of a sentence.
As. I have shown, the subject of a sentence need not be a noun
by structure. However, the subject of a sentence must function
as a noun.   The slot to the left, the optional slot
(Ssjt)   if filled must be filled by a pure noun, in the
sense of our definition of a noun.

No other part of speech that functions as a noun can be
used in the slot (Ssjt-1.) Again, that slot need not be filled.
If that slot is filled, it must be filled by a pure noun as
such.

Let us take a look at the following four   sentences:

            The glass house is an imposing structure.
            The tennis shoes burned the soles of his feet.
            The gold ring was given her by John Malsam.
            Jack's trout fishing gave him pleasure.

Each of the words underlined fills the (Ssjt-1) slot, and
each word is a pure noun by structure.It must be pointed out that
what is in the. (Ssjt-1) does not function as an adjective.
Such a mistaken impression operates only too often. There is
a unique relationship between Ssjt and (Ssjt-1). The relation-
ship is one of "belongs to "   on. "is made of."

In pointing out that each noun or nominal in English has a slot
directly to the left for a noun by structure and a noun by function,
I also pointed out several key bits of information.

I pointed out that the subject of a sentence does not have to be
a noun. Quite often the subject of a sentence is a noun. Further,
the direct object and the object of a preposition do not have
to be nouns. Although it is entirely true that each must be filled
by a word or cluster behaving as a noun, the subject can be another
part of speech other than a noun. Generally, that other part of
speech is a verb or an adjective. Again, these comments also
apply to the direct object and to the object of a preposition.
The slot to the left of the subject, direct object, and object
of a preposition is optional in that although the slot is there
the slot need not be filled.

In discussing the slot Ssjt and (Ssjt-1), I found it essential to
try to find a structural definition for a noun, one which must
work every time. After a careful analysis , it was found that
every other usual way would not solve the problem.

Only by using the test for "more," "fewer," or "less" could I--
or can I--define the noun. If the part of speech answering to
these categories is not an adverb or an adjective, the part of
speech must be a noun or pronoun. A pronoun will not accept a
noun to its left. The adjective was defined in terms of "seems" or
"very." The adverb was defined in terms of its slowing the speed
of an utterance when moved to the left.*

At this point--where,admittedly, I am confining my slotfilling to
the subject, we have two slots as follows:

(Ssjt-1)   Ssjt

There the Ssjt is the simple subject of the sentence. (Ssjt-1)
a noun by structure and function sits directly to the left of the
simple subject slot. As I mentioned at the conclusion of the
last number, (Ssjt-1) when filled does not function as an
adjective or as an adjectival. The slot has the unique function
and purpose of establishing relationships with the simple
subject, relationships such as "belongs to" or is a part of."

* "More" or "less" can stand before a verb, also. However, we
note that words ending with the /-ing / are verbs by structure.

In the sentence "The gold ring was a present from his mother," "gold" is not a quality or attribute of the ring in a way that "golden" would be. The ring is "made of gold."

In the sentence ""Joe's tennis shoes have begun to show some wear," "tennis", a pure noun, indicates the class of shoes to which the shoes belong.

In the sentence "Those iron rails seem to stretch out there forever," "iron" is a noun, a noun filling the (Ssjt-1) slot, as is true in the two other sentences involving "gold" and "tennis." It would be well to have practice with this. In the sentence " The long iron rails seem to stretch out there forever," the rails may be made from"iron"but not from"long".

There is much value in placing two nouns together. The oral or written utterances are more specific. This slot should be the object of much work on virtually all grade levels.

It is quite certain that when the (Ssjt-1) slot is filled, there will be more than one kernel sentence or more than one basic sentence:

                The gold ring is a present.

At least we have two thoughts:

                The ring is a present.
                The ring is gold.

The mind, desiring to unite the ring and its nature simply states through language that the gold ring is a present. The following statements indicate that this slot may be filled when using the direct object and the object of a preposition:

                I purchased the gold ring.
                I heard the story of the gold ring.

In the first of those two sentences, "ring" is the direct object. In the second, "ring" is the object of the preposition "of." One problem, a purely mechanical one, is that of naming the slot in those two sentences. The slot cannot be (Ssjt-1). That slot is for the simple subject. It would be possible to have a slot (D.O.-1), or the slot directly to the left of the direct object. Then, the other slot might well be called (O.P.-1), or the slot directly to the left of the object of the preposition.

My suggestion is that the (Ssjt-1) slot be mastered first. When we must use the slot V+1 as the verb completer for all verbs, and when we also wish to designate the D.O. within V+1 in terms of a noun to the left of the D.O., there could be some initial confusion.

I now direct attention to the slot to the left of
(Ssjt-1) or its equivalent when using the ˉdirect·object ··or
the object of the preposition.

This slot is for the adjective or for the adjectival. The adjective
I refer to is a ¨pure¨ adjective, that is, an adjective by
structure. An adjectival is the term I use for a part of speech
used as an adjective: for example, the use of the verb for an
adjective would be using an adjectival. It is helpful to
insist that /-əl/ be understood in the sense of ¨used as.¨

The entire range of adjectives and adjectivals fills the slot
two places to the left of a noun or nounal used as the subject
of the sentence, or as the objective of a preposition, or as
the direct object.

There are many subclasses of adjectives. At this time it is
almost impossible to talk about their order. By considerable
experimentation we could ascertain the number of subclasses.

I am going to set out seven subclasses of adjectives. There
are many others. We have the adjectives or adjectivals of
the varieties known as the proper adjective, the adjective
of color, the adjective of shape, the adjective of size, the
adjective of age, the adjective of value, and the adjectival
that comes from the verb. These occupy set positions with
respect to each other. In English, the positions are somewhat
inflexible.

As an example of each of those cited, we have the following:

>   The Chinese influence was made known to the diplomats.
>   The red rose was resisting wilting.
>   The rectangular box fell from the table near the
>   television.
>   The huge crowd of eighty thousand let out a roar of
>   enthusiasm.
>   The ancient sword was priced at sixty thousand dollars.
>   The miserable bailiff evicted the three old ladies
>   from their old house.
>   The exciting third quarter came to an end with the
>   successful Miami thirty-eight year field goal.

It is necessary to define ¨ value.¨ A value judgment word
is one which carries the meaning of a virtue or vice or which
carries a¨purr¨ or ¨snarl¨connotation. I am using ¨purr¨ and
¨snarl¨ in the sense used by Hayakawa who coined these terms.
Value judgment words tell us very little about a person, place,
thing, institution, idea, or event. They do tell us about the
speaker's attitude or feeling about the element of experience
under discussion.

Can the slots in the adjective-adjectival set be inter-
changed? As far as I know at this time, the only slots which
can be interchanged directly are those of age and size.
However, even here it would appear that we would say or
write " Tha huge old....." rather than "That old huge......."
sequence.

By having a number of Americans--two hundred thousand or
three hundred thousand people-- give their views , we could
probably get a rather definitive answer to that question.
There is no iron-clad rule written down as to what kinds of
adjectives must be next to other kinds. We know that at this pres-
ent time in our language we have some orders rather than others.
I have never known anyone to teach directly the order of one
subclass with respect to another.

It would be a very good wager to make to the effect that
speakers of American-English, native-born speakers, will place
classes of adjectives next to others with no formal educational
training. It is only later that we are becoming awar e of the
order of adjectives . This awareness has come about as the result
of the time, human resources, and money available for research.
At this time we can only conclude that the mind, American-style,
at least ,wants to have shape before color, for example. My
observations concerning the setting of subclasses of adjectives
in an order is true of many other languages. Although it is
true that other languages-- for example--Spanish-- have more
adjectives in the postnominal position that is true of the
English language, adjectives are placed next to each other
according to a certain order. Why the mind orders qualities
or attributes in a certain way is difficult to say.

There are many other subclasses of adjectives, some of them
being the categories of touch, taste, smell, sound, odor, and
direction. If anyone has at his disposal a large number of
willing people who will put the various adjectives in
the categories they should fit and if this number will also
place the subclasses next to each other, we will have
a total description of adjective--adjectival ordering.

Two years ago, as a result of a six-month dictionary
survey, I found that we have at least thirty-five thousand
adjectives at our disposal. The next step, for those willing
to do some experimental work, is to place each adjective in
a category. Then, as I indicated, the next step is the
ordering step.

The reader who wishes to pursue the matter of adjectives further
will find that each major author uses adjectives uniquely.
He uses all sorts of adjectives, but he has his own pattern
which differentiates him and his work from all other major
writers.

I point out now that this slot which is two places to the
left of the nouns or nounal-used as nouns-- is optional.
The slot (Ssjt-1) is optional. Such is also true of the
slot (Ssjt-2).

However, we can use as many adjectives as our utterance will·
allow; we can do so as long as we keep the order of the
adjectives.

Of course, the more adjectives we use to the left of the
noun or nominal, the more we tend to "cover up" the subject,
the object, or the object of the preposition.

It is often more effective if we place adjectives after .
the noun and before the verb. It is true that the adjectives
is the most famous or notorious part of speech. As soon as
we hear the first adjective before the noun, we are   placed
in the position of having our minds or attitudes determined.
If I assert that "The miserable Joe Jones is raising money
for the Kiwanis," the term "miserable" determines for the
listener or reader all of Joe Jones. Even his money-raising
is placed in doubt.   Jones may even desire to help the
Kiwanis, but the term "miserable" places the honesty of that
desire in doubt.

Knowing how adjectives fill slots,as well as the subslots they
fill, is of value. Two of the values are knowledge for itself
and more effective writing.

Finally, it is neceesary to point out, again, that as one
scans the adjectives in their subclasses from the left of the
noun or nounals he must notice that the meaning becomes less
specific. The move is from the descriptive to the attitudinal
mode.

The (Ssjt-2) is subdivided into the following subclasses of
seven for my purpose.(We have just considered the fact that
there are other subclasses not included:)

<div align="center">(Ssjt-2)</div>

(Verb)	(Value)	)(Size)	(Age)	(Shape)	(Color)	(Prop. Adj.)
(exciting)	(lovely)	(tiny)	(old)	(square)	(red)	(French)
(wounded)	(adorable)	(huge)	(ripe)	(oval)	(green)	(Grecian)
(rushing))	(kind)	(great)	(mature)	(round)	(blue)	(Spanish)
(lost)	(mean)	(vast)	(ancient)	(tri-	(brown)	(Persian)
(appealing)	(selfish)	(small)	(young)	angul-	(black)	
				ar)		

Again, the more specific the meaning carried by the adjective,
the closer the adjective to the noun or nounal.

In the next numbers, I shall consider the slot; three places to the
left of the subject, the direct object, and the object of the
preposition.

Slotfilling: VII,VIII, IX, and X

In past issues involving slotfilling, I have indicated its import-
ance in understanding how language can serve the human mind, with
its tripartite aspects of thought, emotions, and senses--or of the
elements of the head, the heart, and the hand--or, finally, of
thinking, feeling, and sensing.

I have indicated that there are certain slots in the English
sentence--and other sentences in the languages of other people--
which are optional and mandatory. In English, when we use a basic
or kernel sentence, four slots are required: one for the determiner,
one for the simple subject, one for the verb, and one for the
verb completer. The other slots are optional. That is, the slots
exist for specific purposes, but the slots need not be filled.

By way of review, let me point out that the basic sentence in
English has four positions: the first is for the subject; the
second is for the verb; the third is for the verb completer; and,
the fourth is for the option adverb.

I have also shown that when we consider the simple subject, or the
direct object, or the object of a preposition, there is one slot
to the left of each noun or nounal which must be reserved for
a noun by structure and function. (The simple subject, the direct
object, and the object of a preposition do not have to be nouns;
they can be some other part of speech--usually an adjective or a
verb.)

Although I am discussing these slots from the point of view of
the simple subject which I call"Ssjt", the same sequencing is true
for slots to the left of the direct object and to the left of the
object of a preposition.

I have shown that the adjectives are two slots to the left of the
simple subject. I have indicated at least seven subclasses. I have
also shown that there are actually a much larger number than seven
subclasses. These subclasses await research and description as to
their place(s) relative to one another.

The order with respect to one another is rather fixed, with only
the subclasses of "age" and "size" being interchangeable. It is
true that the Proper Adjective slot may be interchanged with
Color. However, that exchange should force a hyphen: Chinese-red,
chrome-yellow, or Scandinavian-blue.

Each of the two slots to the left of the nouns or nounals
described is optional: they are there, but they need not be
filled.

Such is also true of the slot three places to the left of the
noun or nouns-- the simple, subject, the direct object, and the
object of the preposition. Again, I am taking the liberty of
stating the symbolic representation of only the simple subject
in terms of Ssjt(Later, I will consider with the reader how
to name or number slots to the left of the direct object and of
the object of the preposition.)

In (Ssjt-3), there are four known subslots or subclasses. The
best term to use for these four subclasses is that of the
"Postregular Determiner." That is a term used by many linguists.
Ranging from right to left, as we move away from the noun or nounal
the four subslots are as follows: the comparative and superlative,
the intensifiers, the cardinals, and the ordinals.

We do not have to use these four slots, but if we do, they are
in the order designated. It can be seen that these subslots are
rather rigidly ordered in sequence with respect to one another.
Each of the slots making up this major slot is quite evident as
to its nature and content. I shall set the divisions out below:

		(Ssjt-3) Postregular Determiners	
Ordinals	Cardinals	Intensifiers	Superlative & Comparatives
first	one	many a	more
third	two	very	most
twentieth	twenty	quite	fewer
hundredth	hundred	rather	fewest
millionth	thousand	terribly	less
next	million	horribly	least
last	several	a bit	
final	many		
	few		

Now, it is clear that we can use more than one postregular
determiner. These postregular determiners can appear together,
but, as Thomas observes, only in a set order. His term is
"co-occur." * We can have such expressions as

          the first eight candidates
          the final three weeks
          the next ten applicants

It should be noted that some of the terms used in the (Ssjt-3)
slot suggest that this slot has terms using more than one part
of speech. Some of the terms are adjectives; some of the terms
are pronouns; at least is a noun; and some are adverbs. This
range of subslots for the Postregular Determiners is a matter of
on order.
_____
   * .

      Thomas, Tranformational Grammar and the Teacher of English,
N.Y., H,R & W, pp. 79 et seq.

We must next consider how much deviation from the order of the
four subslots can occur. We can use such a term as "twenty-four".
It would appear here that the hyphen is used for one reason, from
a grammatical point of view and one reason from a semantic point.
When the voice has a cut in the speech stream of a certain
magnitude or width, we have separate words. When there is no
discernible cut, we have a fusion, as in"blackboard" When there
is a cut too "long" or "too open" for fusion and not enough
of a cut for two words, we "hyphenate."

From a semantic point of view, when there is a"meaninful relation-
ship", we should always hyphenate. That semantic viewpoint becomes
clearer when we have such a construction   which appears to
violate the order ordinals-cardinals. Let us use an example
from Thomas, as cited on our p.2.:

> the two second basemen
> the four final examinations

However, it is interesting to note that when we articulate
these orally, with a natural secondary stress on "two" and on
"four," the terms following blend .. phonologically to form nearly
single words--as "second-basemen" and "final-examinations."
From a phonological point of view these terms are as one simple
subject, object, or object of a preposition.

As I indicated earlier, phonology , as a part of grammar, takes
its "first cut." Again, this slot with its four subslots is
"optional." We do not have to take items from (Ssjt-3.) If we
do, then we must obey the order or sequence. Then I direct
attention to the move to the left, where we shall find the
Regular Determiners. Here, we are forced to use at least one
regular determiner before the simple subject.

This obligatory slot or mandatory slot is termed, here,
Ssjt-4. Remember that the presence of parentheses indicates
"optional." The regular determiners may be broken down into
Articles, Demonstratives, Genitives or Possessives, Beharts,
or Null--Ø. There are only three genuine articles: a, an, and
the.

Contrary to much misunderstanding, the article is not a kind
or form of an adjective. The article stands for all of the
qualities of the noun or nounal before which it appears. The
adjective can stand for only one quality. Consider examples of
the article:

> a book   for all of the book
> the road   for all of the road
> an orange   for all of the qualites of the orange
> the justice   for all of the justice

The next examples will indicate that the adjective points to one
specific quality of the noun or nounal.

> Someone has just painted the <u>red</u> house.
> The <u>fast</u> runner broke a school record.
> The <u>complete</u> dinner was just what he needed.

In the first sentence the house is pointed to in terms
of color.

In the second sentence a quality of the runner is outlined.

In the third sentence an attribute of this particular dinner
is pointed out.

Then, by way of review, let us consider that an adjective can
point to only one quality or attribute of the adjective or
adjectival. The article stands for all of the qualities
that the noun or nounal may possess. However, the article
does not look at any specific quality. The pure articles
are three: "a","an", and "the".

When the noun or nounal appears with no visible determiner--
without a demonstrative, or an article, or a possessive,
or a behart-- the determiner is null or Ø. It is vital
to understand that null carries two meanings. The first
indicates that there is no visible member of the set. The
second indicates that there does not need to be a visible
determinant there (I have stressed this fact in an earlier
number.)

Some authorities (Thomas, for example) include such
words as "any," "every," "each," and "some" as articles.
Such is not the case. They may behave as articles, but they
are not articles. The only three articles are "a," "an," and
"the." The words detailed are pronouns. They may function
as articles, but they are not articles.
I have called them "beharts," a representation of "behave as
articles."

It is essential that every subject must have a determiner,
even though the determiner be null (Ø). Every subject
must have a determiner! Every direct object must have a
determiner! Every object of a preposition must have a deter-
miner. Every noun or nounal in apposition must have a
determiner.

At the present point we have filled slots to the left of.
the simple subject. Ssjt has to its left (Ssjt-1). This
slot is reserved for a pure noun, one which functions and
has the structure of a noun. This slot is optional.

To the left of (Ssjt-1) comes the major slot for the
adjective or adjectival. I have indicated at least seven
subslots, indicating that there are many other subslots for
(Ssjt-2)--which, again, is optional.

To the left of (Ssjt-2) comes the set of Postregular
Determiners, another optional set: this set consits of
four slots ranging to the left of (Ssjt-2) in this order:
(Ssjt-3 C& S)--comparatives and superlatives; (Ssjt-3 Int)--
intensifiers; (Ssjt-3Ord)--ordinals; and, finally, (Ssjt-3
Card)--cardinals . The slots seemed to be based on function.
There are postregular determiners, those which come after the
required determines in Ssjt-4 , but there are several parts
of speech which fill these (Ssjt-3) slots.

As I have shown, the Regular Determiners indicate a required
or mandatory use or usage. There must be a regular
determiner to the left of a noun or nounal. I have shown
that the regular determiners are as follows: the article,
the demonstrative, the behart, the possessive or genitive, or
null (∅).

Finally, we come to the Preregular Determiner, an optional
slot indicated by (Ssjt-5). In a sentence in the order of
Nominal + Verb + Verb Completer + Optional Adverb, we can
go no farther to the left in such a sentence than (Ssjt-5).

There are certainly four words which can always appear
there:"both","only","just","and"all." I have found that it is
also possible to put such words as   "simply," "merely,"
"positively," and "barely" in this position.

However, there is a problem involving the use of "of" after
such words as "both" and "all." I will postpone discussion
of that problem until I have taken up the rest of the complete
subject. To the right of the simple subject there are two
slots which can be alternated and repeated, which are
certainly "recursive."

Each of the slots is optional. Because the slots occur to the
right of the simple subject, I shall use the sign + to
indicate "to the right of."

The (Ssjt + 1) occurs to the right of the simple subject
and is reserved for adverbs. To the right of this slot is
another optional slot (Ssjt+2) . This slot is reserved for
prepositional phrases. We can look at the following
examples:

> The four men downstairs in the basement....
> The two soldiers here kicked......

In the first sentence "downstairs" fills the (Ssjt+ 1) slot.
"In the basement" fills the (Ssjt+2)slot.

In the second sentence "here" fills the (Ssjt+1) slot.

However, the slots can shift somewhat, as can be seen in the
following example:

The two soldiers down there faced the enemy bravely.

In this instance, we have two examples of (Ssjt + 1).

Then we have this example:

    The two soldiers by the creek there faced the enemy....

Here we have (Ssjt+2) + (Ssjt+ 1).

Here we see that (Ssjt+2) comes before (Ssjt+ 1). The
adverbials in nearly every language have almost unlimited
freedom of movement.

Then we can alternate for an unlimited time, should we
so desire. We can have more than one set of adverbs and
prepositional phrases:

The two old crows down by the creek up near Smith's house
over on Triplett Creek........

Here we have (Ssjt+1) +(Ssjt + 2) + (Ssjt+1) + (Ssjt+2)
+ (Ssjt+ 1) +(Ssjt+2).........

Rules that are applied sequentially and more than one time
are named "recursive." Through the phenomenon of
"recursiveness" sentences can be produced without limit
as to length.

Gleason, in his Linguistics and English Grammar   discusses
recursiveness." When, for example, an NP occurs on both
sides of the arrow, the combination is recursive. He states
the following example:

    he + -'s + sister+ -'s + husband+ -'s + brother+'s + wife

        his   sister's husband's brother's wife.

He applies   relevant rules to obtain

    his younger sister's new husband's oldest brother's
    second wife...

We can pile up adverbs, prepositions, adjectives and other
words of different parts of speech through techniques
entirely akin to these examples.

        H.A. Gleason, Jr, Linguistics and English Grammar,
N.Y., H,R & W., pp. 230-231.

At this point, we have completed the range of the
complete subject. We could say that we have also completed
the range of other kinds of nouns or nominals.

If we have a sentence in this following order of
Subject-Verb=Verb Completer-Optional Adverb, the farthest
we can go to the left is with (Ssjt-5). This optional set
of predeterminers consists of but a few words.

It is interesting to consider that the negative is a
transformation. However, we can also note that we can
commence in the (Ssjt-5) with "not." If we commence with
"no," then we cannot use a visible required Ssjt-4, or
regular determiner. We would have to use or accept null--Ø--
as the regular determiner.

That is, we can commence a statement in the order "Not the
first two most miserable,,,,......."

We cannot commence such a set with "no."

Moving from left to right we must make a choice from
the following kinds of regular determiners: demonstratives,
articles, beharts, possessives or genitives, or null--Ø.

Then we come to the optional postregular determiners.
From left to right these are the ordinals, the cardinals,
the intensifiers, and the comparatives and superlatives. It
can be seen that words that fill these four subslots
are of different parts of speech, as we have earlier
noted.

Seldom can there be a "switch" of subslots. When such a
switch is possible, a hyphen is demanded. The hyphen is
demanded on phonological grounds. Sound makes its first
and inevitable claim. The hyphen, again, is caused by
a cut in the speech stream too long for closed juncture and
too   short for open juncture.   It is worthwhile for the
reader to make such tests or confirmations for himself.

The adjectives or adjectivals representedby (Ssjt-2) are
optional. There are at least twenty subslots: I have
indicated a "working" seven. There is enough evidence to
show that as we move from left to right--or closer to the
simple subject--we move from that which is vague to that which
is precise. We move from words which evoke attitudes
to words which tend to describe. The left describes or
states a feeling about the simple subject. The right
ground--near the simple subject-- details or describes
physical attributesof the simple subject.

The   seven   subslots we have   viewed are--from left to
right-- verbs acting as adjectives, value-judgment
adjectives, size adjectives, age adjectives, shape
adjectives, .color adjectives, and proper adjectives.

The slot next to the simple subject, another optional
slot is (Ssjt-1). We have considered the fact that this slot
is for "pure" nouns. Whatever is there must be structured
as a noun and must function as a noun.

Then comes the simple subject, an obligatory slotfiller.
This subject need not be a noun. To the right comes
(Ssjt+1) and then (Ssjt+2). Each is optional. We have seen
that the adverb and prepositional phrase may take different
orders with respect to each other.

We now come to the verb phrase. The verb phrase is all that
is not the complete subject. The first visible part of the
verb phrase is the verb and its auxiliaries, or markers,
or helpers, or signallers--variously called. These are to the
left of the main verb itself.

If we call the main verb 'V", then we have three slots
to the left' (V-1), (V-2), and (V-3). It is seen that not
one of the slots is obligatory or mandatory--each is optional.

However, there is an important point. In a sentence of the
order which has a subject, a verb, a verb completer, and an
optional adverb, there must be tense. "Tense" is not time,
but a measurement of time. Now, tense occurs just after the
completion of the complete subject and just before the
verb phrase. The obligatory Tn is indicated by the verb
slot filled immediately to its right. If (V-3) is filled,
(V-3) indicates the tense. If (V-2) is filled and not (V-3),
then (V-2) indicates the tense, and so on.

(V-3), the leftmost part of the verb, or the leftmost
slot for the verb, is filled by modals. The modals
serve at least two purposes: first, they register physical
or clock-time time. Next, they measure psychological time.
Here, we are concerned with the measurement of clock-time.
The indicators of the present tense are"may","can","will", and
Shall" The indicators of the past time are"should","would",
Might", and"could." The other modals indicate a timelessness
or an all-timeness. Other modals are"must"," need(to),"
ought(to)", and dare "to." (It is quite likely that there
is an equivalent of a (V-4) for the emphatic "do"." However,
at this point, we are not certain where this emphatic
has its locus. It may be located at (V-1). I do assume,
with no difficulty for anyone, that (V-4) if existent
does contain the emphatic. However, although proof to the
contrary are nearly impossible, I cannot assert conclusively
that the emphatic does fill (V-4). The problem is that
Do- cannot be used with modals, have+en, and be+ing. It
seems to exclude their use or usage. It is often viewed
as a transformation.

(V-2) has three markers:"has!""had", and"have." This slot
is often designated as (have+en), or the sign of the past
participle. By way of measurement of time, this slot is
uniquely valuable. We use "has" or "have" to indicate an
action that started in the simple past and has moved up to
present time. If we did not have these words, we would have
no way of telling someone that we have taken care of the
intellectual faculty which states a continuum from some past
initial action or state through or to the present moment.

Then there is the vital "had." We use "had" to indicate the
earliest of two past actions. I give three examples of the
usage of "had " :

> He found his gloves where he had lost them.
> If he had studied, he would have passed.
> He lost his job because he had been late many times,

When we move closer to the main verb with (V-1), or
(be+ing), we are at the point of the present participle. This
slot can be filled by the following words:"be","am","is","are","
"was","were","been,"and"being."

EAch of the slots of the variety (V-3),(V-2), and (V-1) is
optional. "V" is obligatory. Thus far, we can see that in
a sentence of the variety subject-verb-verb completer- and
optional adverb, the slots Ssjt-4, Ssjt, and V are
mandatory. Such is also the case with V+1. Fach sentence
of the order indicated must have a verb completer.

V+1, the slot for the verb completer, must be viewed
from four different facets. First, the verb "to be"
sentence has a verb completer called the "predicate." This
predicate can contain--must contain--at least one of the
following options: a noun or nounal, an adjective,
adjectival, or an adverb of location:

> The men are soldiers,
> The men are laxy.
> The men are here.

In the sentence pattern with the direct object, there are
three possibilities. First, the direct object consists of
one word. Second, the direct object is indicated by a verb
plus a preposition. Third, the direct object is pointed out
by an indirect object which is a part of the verb:

> He pounded the desk.. single word "pounded."
> He turned on the faucet. verb + a preposition.
> He gave the Red Cross money. verb + a noun

The third sentence pattern, the whole-part can be completed,
or must be completed, by having one of the three possibilities
of its "complement" used. These possibilities are the same
as for the verb "to be." There must be a noun or nounal, an   ,
adjective or adjectival, or location:

    He seemed a giant to me. noun.
    He remained lazy.   adjective
    Water remained everywhere. location.

The last sentence, or the intransitive,has no visible word in
the V+1 position. Hence, the verb completer for this sentence--
and there must be one--is null or Ø . We have such examples
as the following:

    Birds fly.
    Birds fly in the forest.

In each case, after "fly" comes the verb completer null or Ø.

We now come to the (V+2) slot. This slot is optional. The
slot is filled by an adverb or by an adverbial. We can have
a single word, or a phrase, or a clause:

    He kicked the ball briskly. word
    He kicked the ball into the breeze. phrase.
    He will go when he wants to.   clause.

Thus, in slotfilling we have moved from the optional
(Ssjt-5) on the lefthand side of the sentence to (V+2) on the
righthand side of the sentence.

There can be more than one instance of (V+2) in a sentence.
Consider the following sentences:

    He kicked the ball briskly in the stadium.
    He went home today.

In the first sentence we have "briskly" as (V+2) and
"in the stadium" as (V+2.)

In the second sentence we have "home" as (V+2) and
"today" as (V+2).

In the second sentence it is important to note that we cannot
in English--and in many other languages, put the adverb of
time before the adverb of place. "Home" must come before
"today." To place time before location is not bad grammar, but
"non grammar.

There are three problems to discuss concerning slotfilling.
The first is that of using "of" after "both" and "all."
Let us consider that we have two sentences starting with
one of these words for each, but not followed in each case
by "of":

> Both the first two children in ....
> All the first two students.......

In the first sentence we have "Both" as (Ssjt-5), "the" as
Ssjt-4, "first" as (Ssjt-3 Ord.), "two" as (Ssjt-3 Card), and
"children" as Ssjt.

In the second we have "All" as (Ssjt-5), and the four following
words as in the first sentence.

However, if we place "of" after "both" in the first sentence
and "of" after "All" in the second sentence, we will then have
"Both" and "All", respectively, in the two sentences as
Ssjt. The words following "of" would with "of" constitute
two examples of (Ssjt+2). It will then be considered that
what we are talking about as the simple subject will be
"Both" in the first case and "All" in the second case.

The second problem also involves the prepositional phrase.
Let us consider that we have the two following sentences:

A quart of molasses is quite expensive today.
A mile of spaghetti met his glance.

In the first case, it would appear that "quart" is Ssjt
and that in the second case "mile" is Ssjt. It would appear
then that "of molasses" and "of" spaghetti" must be
examples of (Ssjt+2). If it is urged, and it can be so urged,
that a noun of quantity is present in each instance, then
there is no problem in detailing "molasses" as the object
of "of" and "spaghetti" as the object of "of." That will
leave the nouns of quantity as the subject--or Ssjt--in
each case. We can have an example where we are not overtly
talking about quantity as in "A bed of roses is not his lot."
That is, we cannot set up a special category of nouns of
quantity followed by prepositions where the total term
constitutes the subject. There are many who will assert
that in the three sentences "A quart of molasses," "A mile of
spaghetti," and "A bed of roses" constitute in each case the
simple subject. I do not believe the last assertion to be
true. I believe that each sentence cited can be broken down
into two statements as to the subject. In the first two sentences
the noun of quantity will appear . In the third sentence "bed"
will appear twice when broken down. In combining the two
sentences, the following nouns will cancel down or out to
one: "quart" "mile" and "bed." These are what we are in essence
talking about.

As Gleason ** points out, we can have such statements
as the following:

    a.   city car dealer
    b.   sports car dealer
    c.   new   car dealer
    d.   new car dealer

In the first statement (a.), we are talking about a car dealer
i n the city.

In (b.) we are talking about a dealer who handles the
sports car.

In (c.) we are talking about a car dealer who is new at the
game.

In (d.) we are talking about the dealer who handles the new
car.

It is clear that there are differences.   It is also clear that
we have here examples of recursiveness. Looking at the
complete assertion in -ach case we do have "dealer" .
AS Ssjt. In each case we have "car" as (Ssjt-1).
"city" and "sports" are examples, also of (Ssjt-1). In the
cases of "new" we have "Ssjt-2).

It would appear that the recursive rule will permit and even
force the occurrence of (Ssjt-1) on a multi-appearance
scale.   Gleason cites such examples as "automobile seat
cover manufacturer," "express highway interchange caution
sign," and "Parent-Teacher Association school traffic safety
committee chairman."***

I believe, however, for reasons or reasoning cited earlier,
that "manufacturer," " sign," and " chairman" must be, for
each respective one Ssjt.

Slotfilling reveals what constitutes the nature of the
sentence. Individual experimentation and further speculation
on the results will indicate the value of slotfilling.
A restrictive complet subject , bare of all except
Ssjt, will point toward narration more than toward description.
The student of language can have an overall view of the
possibilities of the sentence for meeting the complex needs
of the human mind for finding vehicles. for adequate
linguistic representation.

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** Gleason, op. cit., p.232.
    *** Ibid., p. 232.

POLLUTED LANGUAGE: A New Linguistic Metaphor, Betsy B. Kaufman & Edward
     J. Lias

During the 1968 garbage-collection strike in New York, city officials
worried that rain would cause a typhoid epidemic in the presence of the
growing heaps of refuse. In the presence of pollution even the pure
beneficial elements of the environment can become lethal threats to
survival.
     Pollution usually implies the addition of something to an otherwise
relatively "pure" environment. When we imagine a trout trying to sur-
vive in the salt-water environment of the ocean (though the fish cannot
recognize a pure or impure environment) we recognize the trout's inabil-
ty to assimilate the added salt and classify the water as "polluted"
for that fish.
     If, however, some element is missing from an environment we do not
think of it as polluted. A shark trapped suddenly in fresh water is in
an environment which is deficient for him. A succulent plant would
experience similar difficulties in arid land which lacks needed irriga-
tion fo life. Such land is in no way polluted but rather starved for
lack of water.
     In this article we will discuss pollution in its broadest sense,
considering the effects of pollution on the environments of both body
and mind.
     We take as a basic premise the idea that each living organism can
have an optimal environment which is pure for tha particular organism.
In our thinking, pure would mean that environment in which a cell or
group of cells functions best. When a bab's "pure" environment changes
so that a biological hindrance, deterioration, handicap, frustration, or
lowered cell efficience is experienced, he may (as a result of this
pollution) get diaper rash and cry, communicating his problem in the
only language he knows. A baby may survive with diaper rash but will
be happier and healthier without it.
     If we agree that each physical environment can be rated on a purity/
pollution scale, then perhaps we can rate the environment of the mind
on the same scale. For just as the physical world functions in an envi-
ronment, our minds also function in an environment--the atmosphere of
media and language. There seems to be no way for one person to transmit
thoughts to other people apart from the various message systems in a
culture. In fact, the mind may be unable to produce abstract thoughts

POLLUTED LANGUAGE: Kaufman and Lias

apart from the media and message systems supplied by the culture. And
without transference of thoughts, society cannot exist. Even in commu-
nities of ants and bees, studies indicate that elemental message systems
and symbolic dances enable the relating of insect to insect, thus per-
mitting the hive to function collectively.

Assuming that the mind could not function or exist apart from its
environment, than the "purity" of that environment deserves analysis.
What different adjustments will be required if the mental environment
is squalid? Do criteria exist for measuring the contamination of the
atmosphere which thought and mind must breathe?

Before we attempt to answer these questions, we must acknowledge that
the pollution of one era may not be regarded as pollution of another
era. When life first sprang into existence, lichens could thrive in an
atmosphere of strong methane or nitrogen. But the plants polluted the
very atmosphere which had given them a first basis for life. As the
plants gave off more and more oxygen the existing plants debased the
"purity" of the atmosphere; therefore a biological adjustment had to
occur before life could continue. Man must watch to see if the linguis-
tic purities of one time period might not become pollutions in another
time or place.

In order to sketch our comparison let us assume that pollution occurs
when any environment is altered from a long-standing norm, so that
single entities cannot exist with optimal ease. The flow of comparisons
from physics to language might be as follows:

A hydrogen atom can exist easily in a vacuum or in the presence of
other, similar, atoms, but if its environment is "polluted" with oxy-
gen the hydrogen atom will lose its individual "life" and will unite
with oxygen.

Similarly, the resulting molecule of water can exist easily in a
wide range of environments but in the presence of certain chemicals or
electricity the water will "break down" and change its mode of existence.

In life a cell can exist in water, or in the presence of other cells
like itself, but in the presence of foreign cells or harsh chemicals
the cell will deteriorate and eventually disintegrate.

Higher on the scale, a group of cells (animals, for instance) can
exist easily in the "natural" atmosphere of air as it may have existed
in 1700, but man's additions of heavy smoke, chemicals, radioactivity,
and insecticide have caused a shorter span of life for many animals.

Presently, highest on the scale, human social groups exist in an
environment of media and language, each individual relating to other
people via the "atmosphere" of media. But when the media are "polluted"
the social "cell" will break down or disintegrate.

Which brings us to the fundamental question: Is there any means of
detecting pollution in language?
Clearly the categories previously used in literary analysis cannot
guide us in the quest for linguistic pollution. For instance, factual
vs. nonfactual statements are not relevant, for either type of state-
ment may be polluted. We all know how to lie with statistics (pollution
by fact) and we also know how to win arguments with poetic license. Sim-
ilarly, the categories of abstractness and concreteness, and ethos and
pathos, are not measures of polluted media. Rather, language and media
must be regarded as polluted when they decrease the efficiency of those
functions for which they exist--namely to further the relating of peo-

ple to people in unifying ways; transferring ideas with nimimal tension
and misunderstanding.

Which brings us to our first assertion: <u>Just as the inner organiza-
tion of a cell is hindered by pollution, so also pollution in language
will inevitably hinder the interpersonal unity of a society.</u>

No aardvark, for instance, can retain its inner organization with
ease in the presence of pollution. Communication between the cells of
the aardvark will be less precise, his heart and liver not cooperating
with their previous efficiency. Hence the body must work harder biolog-
ically to retain its organization, metabolism resistance to infection
and so on. The communications between the parts of the body can be
distorted or misunderstood in the presence of pollution, much as the
Voice of America is "jammed" in order to prevent communication between
the "free world" and the world behing the "Iron Curtain" (We are aware
that these terms--<u>free world</u>,etc.--are loaded and probably constitute
a pollution of language in themselves.)

This same necessity for communication exists at the social level just
as it does in the body physically. Any two people in a community
function and relate to it through the various media and message systems
of that culture, <u>of which formal language is the prime medium.</u> There-
fore, where social integration is lacking we should search for polluted
language, for in its presence the social "cell" of people must expend
more energy to keep the group intact.

Examples of social disintegration are available. Utterances like
the following, spoken by Charles de Gaulle on July 23, 1967, may be
samples of linguistic smog which could have dissolved the friendship
between groups of normally friendly nations such as Canada and the Unite
States.

> Refusing to be subject any longer to the prevalence of
> influences alien to you in the fields of thought, culture and
> science, you must have your own elites, universities, labora
> tories.
> Far from playing second fiddle as in the past in your own
> progress, you are determined to create and direct it and to
> get therefore the necessary teachers, administrators, engineers,
> technicians and specialists.
> Instead of letting outside concerns put to use your terri-
> torie's vast resources, you intend yourselves to discover, organ-
> ize and exploit them.
> What the French over her, once thay are their own masters,
> will have to do in concert with other Canadians is to <u>organize
> ways and means for safeguarding their essence and independence
> next to the colossal state which is their neighbor.</u> [Emphasis
> ours]
>
> <u>The New York Times</u>, July 24, 1967

Most people would be willing to label as polluted all those sentences
which prevented the League of Nations from being extablished, for they
prevented the social "cell" from living with the larger vigor it might
have enjoyed. But can we as readily sense the contamination inherent ir
the words of Charles de Gaulle above? He added in his speech that "this
ascension of French Canadians was hailed by France with all its heart."

Polluted Language: Kaufman, Lias

We expect that all tensions between peoples (including black and white
America) can be maintained only by a "noxious" use of language.
A second aspect of pollution is its effect on the sexual activity and
reproductive ability of a cell; which causes us to infer that pollution
in language may be apparent when the reproduction of thoughts is aborted
between generations or peoples, In semantic terms, the "time-binding"
qualities of language are miscarried in the presence of linguistic
squalor, for contaminated mental environments handicap thought trans-
ferral.
If through language parents could induce their children to perpetuate
life with no variance from tradition, culture would remainstatic forever
Fortunately this never happens except perhaps inisolated cases where '
language is used in a hypnotizing, authoritarian manner.
Innovation and creativity are normally the natural result of healthy
thought reproduction, but in the presence of linguistic pollution, man
often tends either to adhere too closely or to reject completely the way
of life which precedes nim.
Nearly all great discoveries are made because previous knowledge
has been combined in a new or formerly unrecognized pattern or sequence.
Wind has blown dust in people's faces for centuries, but not until
1901 did H. C. Booth reverse the wind to create the vacuum cleaner and
get rid of dust. Even the acceptance of new ideas depends upon clear
communication, for despite substantial evidence Copernicus was unable
to surmount the semantic obstacles in the mind of his Pope and King.
James Watson, in describing his Nobel prize-winning discover of the
structure of DNA, noticed this phenomenon. He suggests that his inabil-
ity to see the possible structure pf DNA was related to the interpersonal
relationships he and his peers encountered in the scientific environ-
ment. Linus Pauling made him jealous, Rosalind Franklin, the crystal-
lographer, was too engrossed in perfection and in the idea that she
had been given DNA as a personal assignment, and Watson himself admits
to a greedy desire to be known as the discoverer.
If Watson and other men involved had been willing to share their
findings freely, the discovery might have been accomplished with greater
spped and less agitation. Describing a lecture given by his colleague,'
Dr. Pauling, on the structure of proteins, Watson says,

Pauling's talk was made with his usual dramatic flair. The
words came out as if he had been in showbusiness all his life.
A curtain kept his model hidden until near the end of his lec-
ture, when he proudly unveiled his latest creation. Then, with
his eyes twinkling, Linus explained the specific characteristics
that made his model--the a-helix--uniquely beautiful. This show,
like all of his dazzling performances, delighted the younger
students in attendance. There was no one like Linus in all the
world. The combination of his prodigious mind and his infectious
grin was unbeatable. Several fellow professors, however, watched
this performance with mixed feelings. Seeing Linus jumping up
and down on the demonstration table and moving his arms like a
magician about to pull a rabbit out of a shoe made them feel in-
adequate. If only he had shown a little humility, it would have
been so much easier to take! Even if he were to say nonsense,
his mesmerized students would never know because of his unquench-

able self-confidence.   A number of his colleagues quietly waited
for the day when he would fall flat on his face by botching some-
thing important.

The necessity of using intellectual energy for "survival" would have
been unnecessary if linguistic problems had not forced Watson to view
life through the "rear-view mirror."   He might have, in a purer environ-
ment, been able to synthesize the concept of the molecule in consider-
ably less time.

Formal language, of course, is not the only means of communication
used by man, for much can be expressed through the nonverbal languages
of touch, fashion, smell, ritual, etc.   Hippies are able to say "I be-
long" through incense, drugs which give "instant" insights, and clothes
which scream, "I do not belong to the decadent establishment."

The language of fashion, as a further example of a specialized lan-
guage environment, can at times provide a wholesome "vocabulary" for
global unity.   The patterns, the styles, the textures, the design, the
feel, the look of garments tend to cut across political and linguistic
borders, providing a simultaneous experience for the peoples of China
as well as England.   Thus, regardless of the "language" involved, we
are urging a reduction of linguistic litter through world-wide goals
and experiences.

A third aspect of our metaphor is the observation that the quality
of biological life dwindles in the presence of pollution, a phenomenon
which evokes the possibility that the quality of life in a social group
may be limited when communication becomes sullied or breaks down.

A robin, in the presence of insecticides, will not build as secure a
nest as before even though twigs and straw are available.   It will
gather less food.   In the presence of stench and decay, animals will
be less robust.   Being depleted of fat, the lowered reserves of energy
prevent the animal from playing and romping in leisure.   Recreation and
aimless play are the normal trademarks of healthy life, even in single-
celled animals.

In the presence of polluted language, the quality of social life may
suffer, for if the mental environments of thousands of people are foul,
they may be required to spend all their energy working to stay alive
with no time for leisure, play or invention.

For instance, all those words which enabled the feudal system to
perpetuate itself for hundreds of years were surely a pollution of lan-
guage.   Only the landlords were free to play and invent, and even their
inventions (weapons for war and protection) reflected further the influ-
ence or presence of "pollution." Leisure allows people to use their minds
to initiate the renaissance and then the age of invention.

Most modern historians reading the newspapers of the early industrial
eras will focus upon the peculiar logic and use of language which per-
mitted and justified child labor and even brutality for the sake of the
system.   And parallel to this are the many books, legislations, legal
documents and arifacts which perpetuated slavery as a virtuous way of
plantation life.   In such paragraphs of language, the carrion index must
surely be high.

Yet, the poisoned mental environment still threatens us today, for
the quality of life is still exceedingly limited, not only in India,
where cattle cannot be used for food, but even in our own country.   The

denial of civil rights, the assassination of valuable leaders, the loot‐ing of shops, the destruction of millions of dollars'worth of property which might have served some human need, may all signal a dangerous in‐crease in the density of linguistic smog. People who live in the midst of these dilemmas do not recognize them as related to their use of lan‐guage. Of course, the air traveler on the shuttle from New York to Wash‐ington sees the band of grey before he lands but once on the ground : either ignores or prefers to overlook the impurities in the air. The pollution of the mental environment has gone unnoticed and unchecked. All of the social problems mentioned above might be improved if we gave attention to the purification of the mental climate.

Other message systems in the culture should also be explored apart from formal language, but regardless of the communication channel, the basic standard of measurement shoul probably be <u>the urgent need of human ity for global unity</u>. This implies that any message in the world which aids nationalistic, self-centered interests <u>at the expense of peace</u> and world federation is a pollution of language.

We might note that political language must of necessity be polluted to some degree because it serves to unify a group (small or large) of people who, despite their unity, cannot promote global unity until that political self-centeredness changes or ceases. In ages past, national‐istic language served humanity well, but in the shadow of atomic weapons it no longer serves. A global metaphor is necessary for survival today. In fact, universal symbols may become imperative. And we have yet to face those signals from outer space!

In his book <u>The Human Use of Human Beings</u>, Norbert Weiner says,

> Among primitive groups the size of the community for an effec‐tive communal life is restricted by the difficulty of transmitting language. For many millennia, this difficulty was enough to reduce the optimum size of the State to something of the order of a few million people, and generally fewer. It will be noted that the great empires which transcended this limited size were held together by improved means of communication. The heart of the Persian Empire was the Royal Road and the relay of messengers who conveyed the Royal Word along it. The great empire of Rome was only possible because of the Roman progress in road-building. These roads served to carry not only the legions, but the written authority of the Emperor as well. With the airplane and the radio of today, the word of the rulers extends to the ends of the earth, and very many of the reasons which previously prevented the exist‐ence of a World State have been abrogated. It is even possible to maintain that modern communication, which forces us to adjudicate the international claims of different broadcasting systems and different airplane nets, has made the World State inevitable.

The language of mass media, especially radio and soon global TV and computer networks, may serve increasingly to provide simultaneous exper iences for people who would not otherwise relate to each other. The ability to nightly plug one's nervous system into the interests of the world serves to promote global unity. Satellites which bring us wrest‐ling from Japan and simultaneously skiing from Finland may clear the mental air for further world federation. For if mental environments

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remain uncleared, the biosphere may perish in redioactive rain.

The view of language which we set forth here is more than a request for honesty in our use of words. Moses, who forbade bearing false witness, was, of course, requesting a reduction of contamination in speech. But "truth" alone does not prevent linguistic pollution. For instance, one can speak "truth" but with inappropriate bluntness, biased descriptions, clogans, syntax, figures of speech, and loaded expressions. In spite of its "truth" content, language such as this aids the rancid genocide of future society.

Perhaps "truth" spoken in love, if someday it is spoken often enough by enough people, will be the "filtered" language of the future, creating a purified mental environment which will foster the peaceful evolution of a healthy global social "cell."