TAGMEMIC THEORY AND ITS CONTRIBUTION
TO COMPOSITION TEACHING

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Table of Contents

Preface ................................................................. iv

I. Paradigm Lost: The "Current-traditional Rhetoric" and the Search for a Sound Theoretical Base for the Composing Process .......... 1

II. The Development of Kenneth L. Pike's Tagmemic Theory ........................................... 8

III. The Use of Tagmemic Theory in Composition Teaching
    A. The Paradigm ...................................................... 15
    B. The Pedagogy .................................................... 25
    C. A Summary ...................................................... 37

IV. The Place and Promise of Tagmemic Theory in Composition: An Evaluation ..................... 38

Notes ............................................................................ 61

Works Consulted ......................................................... 69
Dedication

To my wife, Joan, for her longsuffering, her loving, diligent support and secretarial/editorial expertise;

to Matthew and Mary for their good-natured patience with a too-often preoccupied daddy;

and to my parents and grandparents for their financial and spiritual support without which my schooling would have been impossible.
Preface

Imagine being invited to a party—a party in which the host and the other guests, not to mention the rationale for the party itself, were unknown. You arrive at the party and, while engaging in polite conversation with the other guests, realize most of the others have the same bewildering ignorance regarding their presence at and the purpose for the party. The host himself, though quite gracious, has no more insight into the party's ultimate purpose than you do—he is just another confused guest looking for purpose and direction. A game soon begins, a game whose goal is vague and whose rules are open to varied interpretation and generally contradictory. No one knows who may be winning, what winning would look like anyway and when the game could be said to be over. Your impulse is to grab your coat and head for the door; but then all seem to be enjoying themselves despite the purposelessness of the play. Eventually the search for meaning and direction becomes tedious, trivial, frankly irrelevant. The important thing is that you are at the party at all, playing. Any newcomers to the party are simply assimilated into the group without formal briefing or initiation which, were it possible, would probably be pointless anyway.
This perhaps overdrawn picture portrays one initiate's entry into the composition field. As one examines the literature of the field he/she is struck by the directionless and contradictory notions frequently offered up to a profession whose members are seemingly "tossed to and fro by every wind of doctrine." This month's sparkling new insight is (sometimes literally) next month's anachronism. The bases of evaluation and criticism shift often and sometimes disappear altogether. What "really works" may simply depend upon who has the floor at the time. Impressionistic, highly subjective "techniques" have so dominated the marketplace that it has only been in the past sixteen years that a self-consciousness has emerged to challenge the theoretical underpinnings or lack thereof within the profession.

Limiting this self-consciousness to the past sixteen years is not an altogether arbitrary gesture: it dates from the publication in 1963 of Research in Written Composition, edited by Richard Braddock, et al. The work, which became a standard reference in English education, concluded that the state of composition research at that time could be compared to "chemical research as it emerged from the period of alchemy: some terms are being defined usefully, a number of procedures are being refined, but the field as a whole is laced with dreams, prejudices and makeshift operations."¹ Nineteen sixty-three was also the year Albert Kitzhaber published his survey of composition courses, Themes, Theories and Therapy: the Teaching of Writing
in College. Kitzhaber echoed the sentiments of Braddock, et al., speaking of "widespread uncertainty about aims, a bewildering variety of content, [and] a frequent lack of progression in the course." He concluded, "Freshman English in the nation's colleges and universities is now so confused, so clearly in need of radical and sweeping reforms, that college English departments can continue to ignore the situation only at their increasing peril."3

About two years later, Richard E. Young and Alton L. Becker issued a manifesto "toward a modern theory of rhetoric" in the Harvard Educational Review.4 The impetus for this new attempt at fashioning a rhetoric which would in I. A. Richards' words, "minister to important needs," was Kenneth L. Pike's tagmemic linguistic theories. In the mid-sixties, Young, Becker and Pike were all professors at the University of Michigan and from that base mined the elements of tagmemic theory which would assist composition teachers in actually teaching composition. Their collaboration resulted in an important textbook, Rhetoric: Discovery and Change, and has stimulated a growing body of literature which explores the implications of tagmemic theory for rhetoric and composition.

The purpose of this paper is to introduce and explicate the tagmemic contribution to composition and to offer a critical evaluation of its usefulness and its future in the profession. However, some background material regarding both the status of
contemporary composition theory and the development of tagmemic theory must be set forth in order to make clear the relationship(s) between tagmemic theory and the framework it attempts to dislodge or replace. Consequently, the paper is conveniently organized into these four sections: (1) Paradigm Lost: The "Current-Traditional Rhetoric" and the Search for a Sound Theoretical Base for the Composing Process; (2) The Development of Kenneth L. Pike's Tagmemic Theories; (3) The Use of Tagmemic Theory in Composition Teaching; and (4) The Place and Promise of Tagmemic Theory in Composition: An Evaluation.
"There are two things necessary... a way of discovering those things which are to be understood, and a way of teaching what we have learned."

Augustine
I. Paradigm Lost: The "Current-Traditional Rhetoric" and the Search for a Sound Theoretical Base for the Composing Process

In his widely praised book, *The Structure of Scientific Revolutions*, Thomas S. Kuhn sets forth a theory of "paradigms," disciplinary matrices consisting of values held in common, beliefs and methodologies all of which determine the nature and conduct of a discipline. The paradigm acts as a lens to see through, a guiding perspective which includes and excludes, directs and restricts and generally decides the course, including the kind and area of research, of a discipline. It is a discipline's paradigm, Kuhn argues, that ultimately must be altered, expanded, dislodged in order for "revolution" to take place— it is only after members of the discipline begin to go beyond the existing paradigm in experimentation and refuse to be bound by its limitations that further progress can occur. In this way, inadequate paradigms can be continually updated or superseded by paradigms built upon more accurate, supportable data.

Borrowing Kuhn's terminology, Richard E. Young cogently argues that the composition field is in the grip of a crisis which is paradigmatic. Despite the apparent lack of a paradigm suggested by the work mentioned in the preface by Braddock and Kitzhaber, Young maintains that in fact there
does exist, however tacit and unacknowledged, an identifiable matrix which prescribes and limits the composition profession: "I think a reasonable case can be made for the proposition that for several decades, members of the discipline have shared a remarkably stable system of beliefs, a system that Daniel Fogarty... has called 'current-traditional rhetoric.'" This "current-traditional" paradigm is characterized by certain "vitalist" assumptions, remnants of the Romantic notions of creativity and imagination. As Young explains,

Vitalism, with its stress on the natural powers of the mind and the uniqueness of the creative act, leads to a repudiation of the possibility of teaching the composing process, hence the tendency of current-traditional rhetoric to become a critical study of the products of composing and the art of editing.

The overt features and emphases of the current-traditional rhetoric illustrate this vitalist bias: "the analysis of discourse into words, sentences and paragraphs; the classification of discourse into description, narration, exposition and argument; the strong concern with usage (syntax, spelling, punctuation) and with style (economy, clarity, emphasis)." "Composition" taught under the auspices of the current-traditional paradigm ultimately becomes the cultivation of editorial skills
to the exclusion of invention--that is to say the composing process itself.

In fact, the contrast between process and product has become a commonplace in the composition field and hardly a text can be marketed that doesn't take some kind of bow toward this feature. Unfortunately, however, most of the texts that seem to be taking this contrast seriously are clearly written within the current-traditional framework, incorporating most of its drawbacks and none of the insights that the contrast might imply. A case in point is William J. Kerrigan's *Writing to the Point*, a text which seemingly emphasizes the process over the product. Kerrigan's conception of the writing process is quite different from that of the tagmemicists we will be looking at, for his methodology can, in his words, guarantee results because "it is automatic: it relies on itself, not on any skill of yours; it does not depend on your having good ideas, a good vocabulary, or good expression."¹⁰

Kerrigan cautions the student against expecting "literature" and, depending upon what one means by the term, one can probably go along with him here. On the other hand, Kerrigan's rationale for this caution needs to be carefully examined. Kerrigan tells the student parenthetically, "To produce literature you would ordinarily need to have done a lot of reading and writing, besides, of course, having been born with unusual gifts" (p. 4). Kerrigan has already told the student that his foolproof method works because it doesn't depend at all on him; he then
suggests that the student need not expect "literature," because that requires "unusual gifts." Curious and curiouser. It would seem then that Kerrigan's student world is populated chiefly by two types, one at an opposite pole from the other: the specially gifted student capable of producing literature and who therefore is hardly in need of Kerrigan's text and the ungifted student who barely has to be involved in the writing process at all, considering the all-inclusiveness of the Kerrigan methodology. Consequently, in the Kerrigan composition class, one of two items is trivial and irrelevant: Kerrigan's text or the student himself. The instructor turns out to be rather inconsequential either way.

If the case against Writing to the Point seems overdrawn at this point, consider Kerrigan's own explanation of what it means to "write to the point" in his "Breathing Space" section midway between steps 1-4 and the last two steps:

First of all, writing sentence X forces you at the very beginning of your theme to decide what your point is. That's of the greatest importance, because if you haven't decided what your point is, how are you going to know what to write? (Conversely, deciding at the very beginning what your point is makes your course immediately clear—you know with certainty which way you have to go or which ways are open to you.) (p. 66)
The very "point" at issue in teaching the composing process is, where, when and how does one get a point? That "deciding at the very beginning what your point is" automatically "makes your course immediately clear" is an assertion either perversely naive or criminally ignorant. It is quite apparent here that Kerrigan divorces any notions of invention from the writing process he is attempting to teach. His bold and self-congratulatory claims that "far from restricting students, the tight structure soon frees them to say what they really want to say" and "their themes become as individual as their handwriting" ring hollow in the glaring omission in his methodology of a way to help the students discover "what they really want to say." (p. vi). "What do I say next?" and not "How do I organize my point?" is the question most students must grapple with.

To use Writing to the Point the way Kerrigan prescribes is to elicit from students the kind of banal, predictable responses composition teachers traditionally have demurred. To supplement the text with, say, an invention process of one's own is to undermine and betray the carefully crafted rationale Kerrigan himself has written into his methodology. (It also obviously would argue for the removal of the text altogether, for the very purpose in using the Kerrigan text is ostensibly to give the student one text which will provide him all he needs to write well.) Kerrigan seems to sense this absence for there is some feeble attempt in Step 4 to argue a kind of "generation"
aspect to the revision of a theme but this is hard to take seriously in the midst of Kerrigan's overall portrait of the writing process. One must frankly ask whether any writers, professional or otherwise, in the "real world" actually write the way Kerrigan describes.

One thus comes away from the problematic Writing to the Point perplexed. What place, finally, can there be for a text like Kerrigan's in the composition classroom? I'm compelled to answer that if "composition" is to be taken literally in that sentence, Writing to the Point has no place whatsoever. "Composing" itself seems to have little to do with the process Kerrigan outlines in his text. Unless. Unless, "composing" means always sitting down to write with an extraordinarily clear conception of what one wants to say, what form it should take and which details and illustrations will support it. Unless, "composing" is a rather impersonal, mechanical process which requires only the stimulus of an "assignment" to be put in motion and carried to its end. Unless, the teaching of "composing" can be reduced to the dissemination of a pre-packaged body of information and the consistent exhortation and admonition to the student to follow each rule and formula exactly and circumspectly without the slightest divergence.

We have already said it is a commonplace now to emphasize the process over the product and Kerrigan purports to do the same--but in the most superficial way. For, ultimately Kerrigan's "process" cannot yield the kind of product he
describes as desirable; the embellishments that round a Kerrigan theme into shape must come from outside the system because they cannot be accounted for in the system itself: they are part and parcel of the invention process he ignores or excludes. In the final analysis, Kerrigan's text misleads the student, isolating him from the complex, frustrating, yet ultimately satisfying, process of writing; for Kerrigan, composing is not only simple, it is simplistic.

Tagmemic theory presents composition teachers with a way to fill the vacuum left by the current-traditional rhetoric's neglect and virtual disavowal of invention. It provides both a theoretical foundation and a formal apparatus for employing invention effectively in teaching composition. What is more, tagmemic theory potentially provides the composition profession with an exciting, viable alternative to the current-traditional paradigm which has harnessed and harrassed the development of composition theory. It is the burden of the rest of this paper to demonstrate the usefulness and scope of tagmemic theory in helping to solve some longstanding problems in composition teaching.
II. The Development of Kenneth L. Pike's Tagmemic Theory

In 1948, Kenneth L. Pike began the search for a syntactical counterpart to the phonological and morphological terms, phoneme and morpheme—something at the sentence level which could function as a key identifying unit in the same way that these well-established terms functioned. Pike was looking for a high-level generalization that could characterize all human language and which would simplify the training of missionaries and Bible translators who would encounter previously unstudied and thus grammatically uncharted languages. The result of Pike's search was the tagmeme and the linguistic system that has come to be known as tagmemics. But what was most interesting about his search was the fact that what started as merely a "language theory" soon evolved into a structural theory that attempts to account for all of man's behavior. Indeed, Pike's seminal work of three volumes is entitled, Language in Relation to a Unified Theory of the Structure of Human Behavior.

The impetus for this expansion of the tagmemic theory was an epistemological question: how is it that we can recognize objects without knowing everything about them? As Pike explains, "Tagmemic theory staked its claims on the belief that essential to the description of human behavior as we live it must be the ability to recognize a friend even though he
has just had Wheaties for breakfast, cut his long hair, and replaced his necktie." What is it about a "unit," i.e., any person, event, situation, object, concept that allows one to recognize and describe it adequately? Pursuing the implications of this question further, Pike soon departed from the strictures of the structural linguistics he had been trained in; he could no longer treat language as a sui generis, autonomous phenomenon that could be studied in isolation from other, non-linguistic human behavior.

Pike insists that language must be considered a part of the whole of human behavior and his belief that a unified theory is needed to account for the whole is seen in two major contributions of tagmemics to linguistic thought: (1) the concept of the trimodal structure of behavior and (2) the distinction between emic and etic descriptions of behavior.

Pike argues that every unit of behavior to be well described must be characterized in these three ways: (1) how it differs from everything else in its class; (2) what its range of variability is, i.e., how much it can change and still be itself; and (3) what range of contexts can appropriately contain it, i.e., its distribution among other systems. Theoretically, any unit of human experience can (and ultimately must) be viewed through this trimodal structure. Pike then combines this notion of the trimodal structure of behavior with a model from the physical sciences: any unit can be viewed as a particle, as a wave or as a field. The correlation of these two concepts
results in a matrix which is useful in effectively defining and describing any unit of experience. This matrix forms the heuristic procedure Young, Becker and Pike employ in their textbook, Rhetoric: Discovery and Change. This will be explored in greater detail later.

One of Pike's other contributions to linguistic theory is his distinction between *emic* and *etic* viewpoints. Pike coined the terms from the endings of the words, phonemic and phonetic. The "emic" view is the perspective of the insider, the native, and is concerned with the contrastive, patterned system within a universe of discourse; the "etic" view of a unit is the perspective of the outsider who looks for universals and generalizations. The "emic" view is the view we expect from a participant within a system; the "etic" view is the view we expect of the alien observer. John Algeo has suggested a useful illustration of these kinds of perspectives:

A noncardplayer observing a game of bridge will see different things than a bridge-player will. The noncardplayer, who is an "alien" in this situation, may notice that the cards are handled and passed around, that the players pick up the cards in front of them and carry on a short conversation in cryptic phrases, that one player then puts all of his cards on the table while the other three put theirs down one by one as this player or
that pulls little piles of cards in front of him. . .
What the bridge-player sees as a "native" to the
game is a distinct unit called a "hand," consisting
of the deal, the bidding, the play and the scoring.
The noncardplayer observes a number of etic facts,
some of which fit into the emic categories of the
bridge-player and some of which are irrelevant. . .
To know which events at the card table are signi-
ficant for the game, which are not, and how the
significant events are related to one another, one
must know the rules of the game—that is, one must
know the events emically.\(^{13}\)

This etic/emic contrast is used by Pike to distinguish between
those elements in an uncharted grammar which are crucial,
indispensable factors (emic) and those which are incidental,
insignificant (etic). We will also have more to say about this
aspect of tagmemics below when we examine the use Young, Becker
and Pike have made of this distinction for composition.

Pike's work in tagmemic theory has not, in general, been
as widely accepted by scholars as the work of Noam Chomsky and
other transformationalists. Nevertheless, individual concepts
within tagmemics have been adopted and adapted by a variety of
disciplines.\(^{14}\) Tagmemics can be seen, in a sense, as being all
things to all men, with a remarkably wide range of applications,
especially in but not limited to, linguistics. Austin Hale
confesses that "it is at present quite possible to be a tagmemicist in good standing without subscribing to any particular doctrine regarding the form of grammar. To one who received a good portion of his linguistic upbringing within the tradition of transformational generative grammar, this realization comes as a shock and a revelation."\(^{15}\) Though popularly categorized as a "slot-grammar," Kenneth L. Pike's peculiar insights into the nature of language and behavior are compatible with and not in opposition to the insights of other schemes and systems. Two concerns do, however, set the work of Pike apart from the others: (1) Pike is interested in fashioning a total system of human behavior--and not just one that accounts for language behavior; and (2) Pike is preeminently humanistic in his orientation, and decidedly opposed to any mechanistic view of man or his language behavior. These concerns will be of interest when we later consider attacks that have been made against the tagmemic conception of the composing process.

In view of its adaptability and intended scope, it is not difficult to see how there come to be such labels as "tagmemic rhetoric," "tagmemic discovery procedure," "tagmemic composition theory" and so on. It is not so much that a "grammar theory" has gotten out of hand and invaded territory once considered inaccessible and inappropriate for such theories, but that certain insights discovered in the study of language as language have been found to be useful and
helpful in the teaching of composition. In 1964, in an article in *College Composition and Communication*, Pike suggested a possible contribution to composition teaching by linguistics, tagmemics in particular. In that ground-breaking article, Pike asked, "Would it be possible to explore a number of the axioms of such a language theory [as tagmemics] in order to develop exercises based on these axioms about language structure, but specifically designed to develop writing competence?"¹⁶

Pike's work in training linguistic students to analyze and write descriptions of foreign languages enabled him to "develop a body of theory general enough to apply to any language whatever...and at the same time to invent exercises which would break down the learning problem into small bits in terms of simulated language..."¹⁷ Pike and his colleagues attacked the problem by creating "languagettes" or artificial languages for analysis and inventing exercises to help students learn the effective use of such languages. Pike's ploy here is reminiscent of C. C. Fries' work in applying the insights of structural linguistics to English when he suggests that exercises formerly designed to teach effective use of foreign languages can be successfully used in the English composition classroom.

From that salvo in 1964, Pike, with Michigan colleagues Young and Becker, began to explore the application of the theory to composition teaching. The theory was initially employed to improve the grammatical competence of students;
though helpful here, the theory's potential in serving rhetorical concerns soon became the focus of research and experimentation.\textsuperscript{18} While the three Michigan professors continued to collaborate throughout the decade, their work culminating in the text, \textit{Rhetoric: Discovery and Change}, the seventies saw Richard E. Young emerge as the major spokesman, theorist and researcher for "tagmemic composition theory." Starting "merely" as a language theory, tagmemics has now generated methodologies for helping native speakers to improve their use of their language, supplied the framework for "a modern theory of rhetoric" and, more recently, given impetus to a promising new means of discourse analysis.\textsuperscript{19} The stage is now set for the what and how of tagmemic theory: an exploration of the nature and application of the theory itself.
III. The Use of Tagmemic Theory in Composition Teaching

A. The Paradigm

It shouldn't be surprising that although tagmemic theory has been around for more than twenty-five years, it is only in the past decade that its implications for disciplines other than linguistics have been recognized and pursued. Linguistics, as a "science," has perennially held out much potential for other disciplines, but seemingly has failed to "deliver." Interest in tagmemics' possible use in composition began, as related above, as early as 1964. In the preface to their text, *Rhetoric: Discovery and Change*, the authors explained the combination of events which brought them together:

Pike, a linguistic scholar, had sought to determine whether linguistics could provide the basis for a method of improving competence in writing. Many linguists and composition teachers had assumed that it could, yet the actual contributions of linguistics had not borne out the assumption. New methods of grammatical analysis and pattern practice, and sophisticated approaches to punctuation and usage—to name some of the more significant contributions—came nowhere near providing the basis for a coherent
and comprehensive method. Pike suggested that one particular linguistic theory, tagmemics, could make a much more extensive and fundamental contribution by supplying the theoretical principles and problem-solving procedures necessary for a distinctly new approach to rhetoric. Becker and Young, for several years teachers of freshman rhetoric, were convinced that rhetoric was potentially an important part, perhaps the most important part, of a college student's education; yet they were dismayed by the intellectual emptiness and practical ineffectiveness of conventional courses. The solution Pike proposed to his problem seemed also to offer a solution to their own.20

All three sought, not a stop-gap measure, but a comprehensive method—and beyond that, a paradigm—which would provide composition teachers with an effective means for teaching what the profession had assumed it had always taught: composing.

Between the years 1964 and 1970, these professors experimented, tested, probed and pried, searching out and fashioning, first, a pedagogy, elucidated in and exemplified by the text, Rhetoric: Discovery and Change; and since 1970, centering their work in the search for a paradigm, a context in which the pedagogy established earlier could be put to the greatest use.
In the first part of this section, I want to explore the paradigm developing around the tagmemic pedagogy; in the second section, I want to explicate the pedagogy itself. To make it easier to clarify the theoretical base of tagmemic theory and how the pedagogy comes out of it, I will thus reverse the order of their actual conceptualization.

Young, Becker and Pike believe, as do other tagmemicists working in composition, that the composing process should be the focus of composition teaching and that, indeed, it is something which to some degree can be taught. That is, of course, in direct opposition to the "current-traditional rhetoric" which either denies there can be any direct influence over the process or ignores it altogether as irrelevant. The tagmemicist basically sees invention--the category which, along with arrangement, style, memory and delivery, formed the basis for classical rhetoric--as the key to the composing process. And he sees invention as essentially a "problem-solving" activity. "Problem-solving" here does not mean "puzzle-solving" but is a concept derived from the work of the Swiss psychologist, Jean Piaget.

Piaget posits that humans think in terms of resolving "disequilibriums" in their lives. This process, which begins at a very early age, manifests itself in different strategies which are employed by a person to resolve or eliminate the "disequilibriums" or problems. According to Piaget, all human activities such as play, fantasy, analytical thought--
in short, all "creative processes" manifest the same goal, eliminating the disequilibrium or dissonance which a person senses in his life.21 The three conclusions of Piaget which have the greatest significance for the tagmemicist are these: (1) our understanding of ourselves and our world is always subject to revision—we are continually adapting, synthesizing, maneuvering; (2) the activity the mind engages in during these "maneuverings" is, to some degree, accessible to us through inferences drawn from careful observation and experimentation; and (3) these activities/strategies of the mind are acquired through experience.22

The implication of these conclusions for the tagmemicist is clear: if Piaget is right, then this "problem-solving" activity is the key process that underlies human behavior and if the activity is accessible, if one can isolate and identify its features and further if the process is learned empirically, then it may form the basis for a new rhetorical procedure which can be taught to the student. Richard E. Young puts it this way:

The awareness of inconsistencies in one's image [of the world] produces the wrinkled brow and uneasy feeling characteristic of the earliest stage of inquiry. If the inconsistency is sufficiently uncomfortable, we set about eliminating it. But
how do we get enough control over the felt difficulty to begin systematic investigation?²³

Young answers his own question later on:

Control over a felt difficulty begins with its articulation. . . . Could we develop a set of operations, a heuristic procedure which can help us articulate problems?²⁴

What Young is asking for is a means by which the "problem-solving" activity—which Piaget argues is basic to human consciousness—can be tapped, goaded and enlisted in the struggle for the articulation of "felt difficulties." What is needed, Young says, is a way to summon what is basic and natural to human mental processes. His solution is Kenneth L. Pike's tagmemic discovery matrix which we will consider in the second portion of this section.

This budding paradigm is thus part linguistics, part psychology. The framework on which it is built challenges not only the content of the "current-traditional" paradigm but also the educational theory on which it is founded. The tagmemicist argues that the predominant dictum of education has been that the educational process, the role of the teacher, may be defined as the dissemination of a body of pre-packaged information—an inherited, intrinsically valuable set of facts, beliefs, worldviews. The student's role is simply to "acquire"
this information by whatever means at hand. He is "educated" when he has mastered this body of information. But here an epistemological question is raised. What if human consciousness is not designed to be a passive receptor of pre-packaged information? What if the education process as described not only does not utilize, but actually handicaps and stunts the manifestation of the basic human impulse to "resolve disequilibriums"? It is often observed that children seem to be more alive to the world, more curious, more interested, etc., than adults. What if, say, this lively inquisitiveness on children's part was a manifestation of this inquiring, "problem-solving" activity? A good case could easily be made that this process is eventually drained and eroded out of the child by the "education" he/she endures during the twelve years of public schooling.

The tagmemicist thus demands the "radical and sweeping reforms" for composition programs which Albert Kitzhaber called for in 1963. Such reforms must involve not only content, but also the educational theory upon which those programs are founded. New techniques and tricks are only band-aids on third-degree burns when what is needed is a new paradigm. More than anything else the student needs to be motivated toward inquiry—toward a recovery of what was active in childhood but has disintegrated in the intervening years because of a well-meaning but misguided educational theory. As Lee Odell puts it:
The teacher's role in education is: 1) to help the student learn to recognize those experiences that create dissonance for him; 2) to help the student in his attempt to solve his problem by changing his world, his understanding of the world, or both.25

Specifically in regard to composition teaching, Young draws a broad contrast between the "current-traditional" paradigm and the one he envisions as its replacement. Because of its orientation, the "current-traditional" paradigm can only offer a "trial and error" method of approaching writing problems; it survives as a monument to the befuddled state of pedagogy and the weakness of the educational theory supporting it. Young has characterized it well here:

Today the trial and error method is generally used to solve writing problems. It characterizes the efforts of both the experienced writer and the beginner as they move toward a finished discourse. And it provides the rationale for the instructional techniques in our composition courses. Typically, the teacher gives the student an assignment which loosely describes the completed discourse either by asking a question which the discourse answers or by specifying some of its features (a definition of, an essay on the subject of an essay in imitation of, or some combination of structural, semantic and
phonological constraints). In addition to a loose specification of the terminal product, the input is sometimes specified as well (e.g., after reading x's article, write a 1000 word critical review). False leads filling his wastebasket, the student somehow develops solutions to the work of rhetorical problems, finally producing something which meets the specifications of the assignment. He then submits his work for comment (an attempt at verification) and revises it, if unsatisfactory. He tries, errs, and tries again until the instructor feels the work meets the assignment. By repeatedly making mistakes and learning from them he solves his problems, and in the process develops, hopefully, that complex set of intuitive habits characteristic of the skilled writer.26

In contrast to this arduous, inefficient, enormously time-consuming default method, Young offers an alternative, based on the problem-solving paradigm and tagmemic theory. The core of it is Pike's tagmemic matrix.

This matrix presents a "heuristic" or discovery procedure intended to stimulate and tap that mental process at the center of human behavior. Young carefully distinguishes this heuristic procedure from rule-governed, mechanical procedures and random, trial-and-error ones:
A rule governed procedure specifies a finite series of steps that can be carried out in mechanical fashion without the use of intuition or special ability and that infallibly results in a correct answer. . . .

A heuristic procedure, on the other hand, provides a series of questions or operations that guides inquiry and increases the chances of discovering a workable solution.\textsuperscript{27}

Thus the heuristic procedure is mid-way between rule-governed and trial-and-error methods; like "trial-and-error," it does require the use of "guessing"—it is open-ended, uses "intuition,"—but unlike "trial-and-error" the guesses are not random but systematic. The questions or operations of the heuristic procedure are determined beforehand to guide inquiry and in this way it is like rule-governed behavior.

The "current-traditional rhetoric" has long dealt with the conscious, editorial, "product" side of composition. The missing dimension, however, is the long neglected inventive, "process" side of composition—-that which is unconscious. The tagmemicist argues that the composition teacher must start earlier—-before the words get to the page in order to make any successful progress with the would-be writer. But the tagmemic principles cannot be simply tacked on to existing methods and means; they demand not just a new pedagogy, but a
new paradigm. The "current-traditional" paradigm stifles, not starts the student on the way to finding his "authentic voice."

The question which of course must be raised is, "If the existing paradigm is so bad, how did any of us learn to write?" A facile answer would be something to the effect that we learned in spite of or oblivious to the paradigm. But Young himself frankly admits,

It would be wrong to say that this [trial-and-error] method is inappropriate or unproductive. The loosely specified product and the absence of any attempt to control the process by a sequence of precise operations implies, quite correctly, that rhetorical problems belong to a class which may have several acceptable answers. There is no single correct essay which meets the assignment; many reasonable solutions are possible. Furthermore, the method allows the writer to bring into play all his intuitive capacities, special knowledge and values. Although nothing in the method stimulates imaginative and original work, it at least permits it. Undoubtedly, many people learn to write with this method; most of us did (with or without the help of a teacher), and many of our students do.28

The choices, then, are clear; the profession as a whole can
continue safely within the borders of the tacit, unarticulated, "Current-traditional" paradigm, foundering in a sea of impressionistic strategies; or it can move boldly into a new framework, incorporating the insights of psychology, linguistics and other disciplines into its pedagogy and attempt, perhaps for the first time, to face up to its responsibilities for teaching composing.

B. The Pedagogy

Though it was published almost a decade ago, Rhetoric: Discovery and Change remains the fullest and most accessible statement of tagmemic pedagogy. And since to a great degree the composition profession is its texts, it is both purposeful and crucial to spend time in close, critical analysis of those texts. I propose here to examine Young, Becker and Pike's text, concentrating mainly on the "six maxims" that form its theoretical core. From this examination, a clear picture should emerge, depicting how the tagmemic pedagogy "works" in the classroom setting. I have avoided trying to suggest how any given assignment might be derived from this core, assuming that the would-be user could visualize his own syllabus of activities after he understood the principles involved.29

The authors maintain a much broader view of "rhetoric" than is normally conceded, positing that it "is concerned mainly with a creative process that includes all the choices a
writer makes from his earliest tentative explorations of a problem in what has been called the 'prewriting' stage of the writing process, through choices in arrangement and strategy for a particular audience, to the final editing of the final draft." The text then is heavily weighted in favor of "process," of invention; such matters as grammar, spelling, punctuation and usage are treated only briefly. The authors explain their controlling theme this way:

In planning this book we sought to isolate and describe the choice-points in the writing process—the points between first discovery and finished work at which the writer has a major choice to make. To make appropriate choices the student must understand the process of writing and must have procedures for controlling it. The contributions of tagmemics to understanding and controlling this process are presented in a series of six maxims.

(pp. xi-xii)

These six maxims are:

(1) People conceive the world in terms of repeatable units.
(2) Units of experience are hierarchically structured systems.
(3) A unit, at any level of focus, can be adequately understood only if three aspects of the unit are known: (a) its
contrastive features; (b) its range of variation; and (c) its distribution in larger contexts.

(4) A unit of experience can be viewed as a particle, or as a wave, or as a field.

(5) Change between units can occur only over a bridge of shared features.

(6) Linguistic choices are made in relation to a universe of discourse.

Each maxim will be discussed separately and a final part in this section will attempt to synthesize in coherent form the strategy and goals of tagmemic pedagogy.

Maxim One

This first assumption arises from simple observation of the world we live in. Each human being brings his own unique perspective to existence; all events need interpretation. In the plethora of experiences in life and the ever changing, dynamic flow of events, personalities, things, how can one make sense out of life, eliminating or at least sidestepping misunderstandings and misinterpretations in order to lead a fairly well-ordered life? The answer, as Maxim One states it, is that we all view life in terms of repeatable units. Despite the fact that things outside of us, as well as inside us, are constantly changing, we are still able to recognize a degree
of sameness, able to maintain our own identity which we ourselves can recognize and which others can also.

Language provides a way of "unitizing" experience. As the authors put it, language is a "set of symbols that label recurring chunks of experience" (p. 27). Their example is a chair. Despite the fact that "chair" is a label given to a number of different things (rockers, recliners, sling chairs, etc.) and although its meaning changes as people use it in different situations, each individual chair is seen as a special instance of a recurring unit. "Language depends on our seeing certain experiences as constant or repeatable" (p. 27).

Maxim Two

Maxim One leads naturally into Maxim Two: besides "unitizing" experiences into recognizable chunks, people are also able to focus on these "chunks" in different ways, from different perspectives. The authors' example here is a baseball game. Baseball, with its nine innings constituting a game, can be seen as a recognizable, repeatable chunk or unit. Yet within each game itself, there are smaller units, such as individual pitches, plays and players. In addition to activity on the field itself, there are announcements over the P. A. system, shouts from the spectators and so on. Each unit of the game may be broken down into still smaller subunits and can as
well be seen as units in a larger context. Thus each repeatable unit can be seen as a part of a larger whole, as a unit in itself, or as a system made up of still smaller parts. Thus, one could choose to focus on (1) the game as a whole, the spectacle of the two teams playing against each other, or (2) any individual player and his role in the game, say the pitcher, or (3) something in particular about the player, the way he winds up when he throws or how he walks off the mound after an inning.

These first two maxims set the stage for the presentation of the tagmemic discovery procedure which is visually portrayed as a matrix in which any unit can be seen under the perspective of any one of nine possible categories. Maxims Three and Four constitute this matrix, which is pictured in the chart on page 31.

**Maxims Three and Four**

Maxim Three suggests that any unit, to be understood, must be explained under three rubrics: its contrastive features, its range of variation and its distribution in larger contexts. In other words, in order for the unit to be understood, one must know, first of all, how it contrasts with everything else in its class, then, how much it can change and still be itself, and then finally, the part it plays within the larger system of which it is a member. The
questions which Maxim Three can generate about a unit are limitless, as the authors' illustration of teaching handicapped children to swim indicates:

(1) What are the contrastive features of this unit? What makes teaching handicapped children different from teaching other children? Is teaching them to swim different from teaching them other things? How was this experience unique for me? What makes it stand out in my memory as a significant experience?

(2) What is the unit's range of variation? Conceived of as a unit, the experience of teaching handicapped children to swim is a recurring experience—it can be done more than once. Nevertheless, each instance of the unit is somewhat different. How did the experience change from day to day? What different sorts of situations did I encounter? How did different kinds of handicaps alter the experience? What particular experiences with particular children illustrate the sorts of problems I encountered and the different results I achieved? How did I myself change from day to day or from the beginning to the end of the summer?

(3) What is the unit's distribution in larger contexts? That is, what place, or slot, does it occupy in a larger pattern or system? Where and when did this teaching take place? What was the physical setting? What was the larger program of which swimming lessons were a part? What was the function or purpose of swimming in this program? How did this experience fit into my life? What other experiences preceded it? Followed it? What other experiences were similar for me? Can I conceive of it as one of a class of experiences that all share some feature?

(pp. 56-57)

Maxim Three combines with Maxim Four to establish a heuristic, or method of systematic inquiry, which generates information about a problem and asks fruitful questions. It is at this stage that another dimension evolves in the system.
Young, Becker and Pike's Tagmemic Discovery Matrix

<table>
<thead>
<tr>
<th>CONTRAST</th>
<th>VARIATION</th>
<th>DISTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARTICLE</td>
<td>(1) View the unit as an isolated, static entity.</td>
<td>(4) View the unit as a specific variant form of the concept, i.e., as one among a group of instances that illustrate the concept.</td>
</tr>
<tr>
<td>WAVE</td>
<td>(2) View the unit as a dynamic object or event.</td>
<td>(5) View the unit as a dynamic process.</td>
</tr>
<tr>
<td>FIELD</td>
<td>(3) View the unit as an abstract, multi-dimensional system.</td>
<td>(6) View the unit as a multi-dimensional physical system.</td>
</tr>
</tbody>
</table>
Maxim Three deals with characteristics of the unit itself—how it contrasts, changes, is distributed; Maxim Four deals not with the unit, but with the perceiver of the unit and the perspective he brings to it. Consequently, Maxim Four takes the unit as a given and asks the perceiver to view it from three different perspectives: "as if it were static, or as if it were dynamic, or as if it were a network of relationships or part of a larger network" (p. 122). The unit is not to be looked upon as either a particle or a wave or a field, but can be seen as any of the three at any time.

Thus the chart on page 31 provides the framework for a systematic exploration of a given unit. As an example, the authors chose a common oak tree and worked their way through the chart in this fashion:

1. "Old Faithful" contrasts in size and age with the surrounding trees.

2. It is shedding its leaves more slowly than the other trees. Although still stately, it has passed its lifetime peak of mature, vigorous health.

3. It is composed of roots, trunk and branches, leaves, and reproductive system (the last is not readily discernible and, for this inquirer, constitutes an unknown); each part is composed of subsystems (which again are not discernible and constitute unknowns). Since all trees have roots, trunks, branches, and so on, this oak probably differs from other kinds of trees most clearly in the peculiarities of its subsystems. The parts can be classed according to function: vegetative and reproductive. They exist in a typical spatial relationship; and each of the parts is governed by an intricate timetable—acorns appear early in the year, leaves fall late, and roots continually draw sustenance from the soil or store food for later use, and so on.
(4) It is now old, nearly leafless, with one broken limb and numerous scars where others have fallen off. Ten or twenty years ago it was the same tree, but not at its inception as a seed. Then it was only potentially a tree. When it falls and rots or is cut up into lumber, it will lose its identity.

(5) It is clearly rotting; some of the branches are already dead and others show signs of decay.

(6) Its subsystems support, feed, and repair each other by means of a physiological network. The state of the system differs from hour to hour (e.g., in the regulation of moisture loss) and from day to night (in the handling of carbon dioxide). Some parts of the system can be lost, either temporarily (leaves) or permanently (some branches) without destroying the system.

(7) It is a member of a class of trees called hardwoods, which in turn is part of a larger class system that includes all trees. One of the few remaining trees of the original stand of oaks and hickories (a characteristic kind of forest in this part of the country), it dwarfs the second-generation trees around it.

(8) As part of a scene, its branches stand out sharply against the sky, like irregular lacework, but from a distance its dark trunk merges almost indistinguishably with the trunks of surrounding trees. The vines growing on it give it a special charm but probably contribute to its decay. It shelters wildlife; it draws raw materials for growth from the earth in which it is rooted and in turn enriches the earth with its fallen leaves.

(9) A system in itself, it fills a place in a larger system, a niche in the ecology of the area. (Without extremely close observation and a knowledge of ecology, these questions constitute significant unknowns.)

(pp. 128-129)

This operation, as the authors suggest, hardly exhausts the possibilities left to be explored, but suffices as an illustration of the kind of discovery that the method can generate.
Maxim Five

This assumption considers the basis upon which a writer can effect change in his audience and reflects the traditional, classical view of rhetoric as the art of persuasion. Maxim Five declares that the writer must seek out the experience he happens to share with his audience; these features must not only exist, but the writer must employ them in his presentation or the desired change will not take place. It is apparent that the foundation of the maxim is Pike's emic/etic distinction discussed earlier. If a writer is to be successful in his attempt to persuade, he must communicate in an emic way—that is, he must learn the perspective, manner of expression, et al. of his audience as it were from the inside, as a participant within a system. If he speaks or writes only in an etic fashion, clearly as an outsider, there is little chance of his success. Consequently, the writer must seek out these shared features and again the heuristic procedure defined by Maxims Three and Four provide an adequate means of identifying them. Here is how the authors illustrate the point:

Suppose that a student interested in physics wants to describe a recent invention, a fuel cell, for example, to the members of his composition class. He might begin his quest for shared features by asking:
(1) "How do my fellow students differ from other readers?"
   a) They differ from a class of physics students in that they probably have more varied backgrounds in science.
   b) They differ from newspaper readers in that on the whole they probably have more intellectual curiosity.
   c) They differ from engineering students in that they have widely different vocational and academic interests.

(2) "What is the range of variation of my audience?"
Although in terms of membership it is still the same class that began the semester, it has changed in certain ways.
   a) Since concrete explanation and definition of terms have been stressed in class, the students are likely to look for these features in his paper.
   b) The last time the writer wrote for the class, one student said he didn't know what he was talking about and proved it. At the beginning of the semester the writer was an unknown; now he has a reputation to overcome.

(3) "What is the distribution of my audience in class, sequence, space, and array?"
   a) In class, they are university students, freshmen, socially and economically middle-class, and so on.
   b) In sequence and space, all are freshmen in their late teens; most are urban Midwesterners, and so on.
   c) In systems of categories, they are, as freshmen, at the bottom of the undergraduate hierarchy; they are potentially members of widely different disciplines within the university community.

(179-180)

A corollary to Maxim Five, though not explicitly put forward as a "maxim" in itself is the argumentative strategy devised by psychologist Carl Rogers. His strategy is based upon the view that "out of a need to preserve the stability of his image, a person will refuse to consider alternatives
that he feels are threatening, and hence, that changing a person's image depends on eliminating this sense of threat" (p. 274). This strategy is designed to accomplish three things: (1) to let the reader know he is understood, (2) to explain the areas where the reader's position is valid, and (3) to convince the reader that he and the writer share similar moral qualities, such as honesty and integrity, and aspirations, such as discovering a mutually acceptable resolution to a problem (p. 275). Thus a Rogerian argument would be patterned like this:

(1) An introduction to the problem and a demonstration that the opponent's position is understood.

(2) A statement of the contexts in which the opponent's position may be valid.

(3) A statement of the writer's position, including the contexts in which it is valid.

(4) A statement of how the opponent's position would benefit if he were to adopt elements of the writer's position. If the writer can show that the positions complement each other, that each supplies what the other lacks, so much the better.

(p. 283)

Maxim Six

Maxim Six attempts to underscore the necessity for appropriate choice in composition. Such choices are affected by several different factors, including the structure of the language to be employed, the personality of the writer and
the peculiarities of the topic, the audience and the kind of discourse being attempted. Such factors comprise the writer's "universe of discourse," the context of his creative effort. "Appropriate" choice will take into account each of these factors. Consequently, this maxim is an exhortation to be aware of one's context in composing; to ignore it is to stumble haphazardly through the communicative process and leave effective writing to chance.

C. A Summary

Tagmemic composition theory is thus a synthesis of (1) a linguistic heuristic procedure; (2) a process-oriented, problem-solving paradigm; (3) a Rogerian-based argumentative strategy. As such it attempts to replace a misdirected "current-traditional rhetoric" whose emphasis is upon editorial, after-the-fact skills. It assumes that what the student needs most is not more attention to mere grammatical correctness, but a means to tap unused mental resources and a motivation to resolve unarticulated problems in his worldview. Tagmemic theory aims at a comprehensiveness uncommon to rhetorical and educational theory and consequently is quite eclectic in its orientation to other disciplines. Far from being a completed system, tagmemics continues to evolve, incorporating linguistic, psychological and technological insights as they demonstrate promise for teaching the writing process.
IV. The Place and Promise of Tagmemic Theory in Composition: An Evaluation

Considering the ambitious efforts of the tagmemicists in composition, their aim at comprehensiveness, the impressive array of experimentally verified results they have assembled, it would seem that by now their theories would have set the profession on fire, making it alive with debate and discussion of its potentialities. Instead, there is a strange silence. In fact, tagmemic theory has made no more impact on composition pedagogy than it has on linguistic thinking. Of course, there are small cells of enthusiastic supporters, "true believers," as it were, in both realms. But there has been no "revolution." Rather than being hailed as visionaries and innovators, Young, Becker, Pike and company have been received, at best, as eccentrics, and, at worst, as technological demons. How does one explain it?

Several explanations suggest themselves before any sifting through the facts is done. One possibility is that tagmemic theory is, in the final analysis, unsupportable. Its promoters are merely shadow-boxers who have fashioned an elaborate theory that has no practical application in "real life" teaching situations. Consequently, the profession, seeing through this veneer of theoretical respectability, has rejected an unsound, problematic construct. Another possibility
is that although tagmemics has been proven successful to some degree, other competing theories and systems have been shown to be even more helpful and insightful in teaching the composing process and thus have overshadowed whatever merits tagmemic theory may possess. In a "free market," in other words, only the strong survive. Still another explanation might be that there is a calculated conspiracy of silence in the profession, a product of clandestine political machinations, designed precisely to keep tagmemics down—an effort on behalf of bewildered professors, textbook publishers and promoters of general chaos. Despite the substantiated claims of tagmemicists, the profession has determined to ignore them and thus consign true progress to the trash heap in exchange for political/financial/professional gain.

All of these explanations are implausible; some more than others. First of all, the tagmemic "theory" (using the term in the pejorative sense educators use when they mean, "impractical and uncorroborated") has been rigorously tested over and over again in the past decade in various classroom situations, involving students ranging from twelfth-graders to college seniors, and has been shown to be successful in improving students' writing quality and also in helping them to articulate and resolve "felt difficulties." Further, there is no prejudice in the profession against formally unsubstantiated, impressionistic methodologies. Secondly, although there are several invention schemes which are, in
some sense, "in competition" with the tagmemic one, there can hardly be any such thing as "rivalries" in a profession which has pushed invention to the periphery of composition pedagogy. Not only is there no popularly conceived competing "system," there is ample evidence in any one issue of the profession's journals that its notions are as fragmentary and rudderless as ever. That is to say, there is no apparent rhyme or reason to the kinds of classroom practice and theoretical research being reported on therein. There is nothing remotely resembling a "consensus" of where composition theory is and where it ought to go. There are as many answers as there are answerers. The third suggestion, "a conspiracy of silence," is equally implausible, but perhaps not for the obvious reason that such a conspiracy would require one to think the absolute worst of a profession on a monstrous scale. The fact is, such a "conspiracy of silence" would require a kind of co-operation and consensus unknown in the profession, except in quite extraordinary circumstances, such as the "Soellner affair" of a few years back. No, there are more plausible, significant explanations than these for the general failure of tagmemic theory to invade the composition profession and take a foothold; such explanations involve shortcomings within the profession and within the tagmemic theory, or more particularly, presentations of the theory. I believe the reasons are fourfold: (1) the profession as a whole has been reluctant to consider invention an integral part of composition pedagogy
and tagmemic invention has not been perceived as convincingly more successful than other available schemes; (2) tagmemic composition theory has not been expressed in an easily accessible form and neither has it supplied a convenient means of training teachers how to use it successfully; (3) there exists an anti-technological/scientific bias in the humanities and the composition profession has conceived tagmemic theory in mechanical, anti-humanistic terms; (4) the tagmemic system, for all its comprehensiveness, must go beyond (and be perceived as going beyond) its concern with invention on to the development of equally useful methods of dealing with stylistic and grammatical concerns. Each of these explanations needs further amplification.

(1) The Problem of Invention

The "current-traditional rhetoric," which prevails by default over the profession, considers the composing process quite outside the framework of composition teaching and, consequently, invention is excluded as well. The tagmemicist, on the other hand, believes that the process is accessible and teachable and that invention is not only a "part" of composition, but it is an essential part. Unlike Young, Becker and Pike, who give invention a rather inclusive domain, governing the writing process from first to last, most composition teachers seem to have a quite limited concept of what it
entails. As I tried to explain this more inclusive definition of invention to a group of graduate students who were exploring various kinds of composition theories, it was clear that they could not get beyond thinking of invention merely as "topic selection."

The tagmemic heuristic is one of four that have been utilized to fill the void left by the current-traditional rhetoric's failure to take invention seriously. The others are: (1) The revival of the classical topoi, as represented in a text like Edward P. J. Corbett's *Classical Rhetoric for the Modern Student*; (2) the pre-writing techniques of Gordon Rohman and Albert Wlecke; and (3) Kenneth Burke's dramatistic method, which uses a "pentad" of act, agency, actor, scene and purpose.33 Of the four, only classical rhetoric and Burke's pentad are remotely familiar to the textbook writers. And even these, except in Corbett's own text of course, are usually given the most perfunctory treatment. As a result, even for those who want to include some kind of invention scheme in their teaching, the tagmemic heuristic looms simply as one among many, no better and no worse. In fact, the tagmemic heuristic is more comprehensive than any of the other four; its procedure is specifically designed not only to "retrieve relevant information already known by the student," but also as a means to "analyze problematic data" and to "discover new concepts and ordering principles."34
James Kinney's recent article typifies the indifferent and somewhat negative reception the tagmemic heuristic procedure has engendered. Kinney, like most every other composition teacher, seems to be looking for a foolproof panacea; his expectations had been heightened by the "over-inflated claims" of the tagmemicists but, after "a more detailed... study," he refuses "to accept the basic premise that the kinds of knowledge it provides constitute total, or in some cases, even significant, knowledge about any subject." Further, to Kinney, tagmemics is no improvement over existing procedures, like the topoi of classical rhetoric: "the difference then between the tagmemic heuristic and at least some others seems more nominal than real... It is simply one among many such procedures" (p. 143). Betraying his ignorance of tagmemics' origins, he relegates it to the merely taxonomic, stifling procedures of structural linguistics which suffers in comparison to the more generative transformational theory, "If you recall, structural linguistics contributed to classroom teaching of composition the 'patterns practice' exercise, which never accomplished a whole lot, whereas transformational grammar has given the classroom teacher 'sentence combining,' which has produced some dramatic results in developing syntactic fluency" (p. 144).

First, it may be well to ask whether Kinney has understood the tagmemic procedure. If he did, he could not make some of the remarks he has made in this article. The procedure
involves both intuitive guessing and systematic analysis; as such it is open-ended—and thus potentially successful and potentially unsuccessful. There are no guarantees. No tagmemicist has suggested that the heuristic provides any "knowledge" at all, let alone "total knowledge"; rather, as Lee Odell argues in his reply to Kinney, "It simply raises questions and suggests cognitive operations that can help one explore a topic." In Young, Becker and Pike's words, the procedure "guides inquiry and increases the chances of discovering the solution [to a problem]." If any extravagant claims have surfaced, they have not come from those associated with the tagmemic work itself; far from extravagant, the claims of tagmemicists are quite guarded, in some cases, downright overly modest,

The experiment, however, did not establish that the improved ability to explore problematic data was directly related to the nine-cell discovery procedure. . . . In addition, the tests did not indicate that the theory as presently formulated and the course as it was taught increased the sensitivity to problematic situations.

In response to Kinney's assertion that the tagmemic procedure is not an especial improvement over existing ones, Odell argues, by use of the tagmemic procedure itself, that "we cannot assume that two procedures are equal in all respects
simply because they are comparable in some respects" (pp. 148-149). One would be hard-pressed to come up with any kind of heuristic that didn't have something in common with classical rhetoric; there are only so many kinds of questions that can be asked. On the other hand, there are potentially more effective ways of presenting and "packaging" these inquiries and the tagmemic heuristic has been demonstrated to be more comprehensive and useful in guiding inquiry.

Finally, Kinney's frustrating experience with tagmemics reflects a common attitude among composition teachers: growing impatient with existing methods, latching on to every new one that comes along, but unwilling to spend the time to master the procedure and/or theory behind it--their efforts fail and they return again to the "current-traditional rhetoric." They return to something they can deal with, editorial skills. In response to public outcries of "Why can't Johnny write," the profession is looking for easygoing formulas, quick, easy, painless; the writing process isn't that way, but in view of the "current-traditional rhetoric," we might say, "isn't it pretty to think so?" Better to have, as Kinney puts it, a method like sentence combining which develops "syntactic maturity" (no mean achievement, of course) than to wade waist-deep in the swampy waters of the composing process which might yield significant content to express in such "syntactic maturity." If tagmemics is to make any inroads into the profession, teachers must first be convinced that invention is
not an optional embellishment in the teaching of composition. And then, tagmemicists must convincingly demonstrate that their procedure is indeed superior to any existing heuristic schemes. But this latter obstacle is part and parcel of the second problem facing tagmemics, that of accessibility and teacher training.

(2) The Problem of Accessibility

Even in the most favorable circumstances, where a profession was anxiously awaiting some new revelation about the role of invention in composition, tagmemics would probably not fare well. As Kinney puts it, "tagmemics seems a theory more talked about than understood" (p. 141). Here he echoes the conclusion of Donald C. Stewart, who had surveyed 34 of the most popular composition texts on the market. Stewart discovered it "difficult to find...any evidence that Pike's tagmemic theory has been either widely understood or adopted. The only text which presents it fully is Rhetoric: Discovery and Change by Young, Becker and Pike. As far as I am aware, the book has not been widely adopted, and its theories have scarcely been incorporated into even a small minority of texts now on the market." Of the four reasons to be considered here, perhaps this is the greatest stumblingblock to the acceptance of tagmemics in the profession. Simply put, tagmemics requires more of an intellectual effort to understand
it than some are willing to make, and the oblique way it has been presented has not encouraged too many to try.

Consider some remarks from two early, generally favorable reviews of *Rhetoric: Discovery and Change*:

Pike the theorist and Young-Becker the experienced teachers of composition have written their book uncompromisingly, without deference to the monetary potential. When asked how *Rhetoric* might do in sales, Pike answered rhetorically: "Would you rather write a book that may add to the world of ideas, but that may sell poorly for quite a time, or a book that may be widely adopted at once, but that cannot contribute to knowledge because of the necessary popularization and simplification?". . . . In summary, *Rhetoric* is an evocative, intellectual book, demanding the full mind of the reader in order to be understood and appreciated. It employs tagmemic principles so skillfully, but naturally, that each new, ever-widening formulation can seldom be challenged.40

In spite of my admiration for the concepts of this book, however, I cannot give it my highest recommendation. The ideas, brilliantly conceived, have not been rendered with equal brilliance. . . . The appeal to the students' intellectuality is strong; the emotional appeal is almost totally lacking. . . . In addition, the language of the
explanatory sections is difficult. Although the students are specifically addressed, the language—as one [of my students] commented—seems addressed to the instructor. ... The failure of this book to adequately realize the concepts on which it is based is unfortunate; it has much to offer as a new approach to the teaching of writing. ⁴¹

These are, of course, comments specifically about one textbook and must be understood in that context; however, the remarks of these reviewers reflect the experience of many who have tackled not only this text, but other writings from the tagmemicists as well. Several things stand out. The authors would not risk watering down or "compromising" their theory for the purpose of popularization and monetary success. Consequently, they have presented the theory and the pedagogy "on their own terms," so to speak. It's all there—the reader, whether teacher or student, must simply roll up his sleeves and dig in. Perhaps this is a subtle ploy by the authors to illustrate that unless the instructor/student is willing to make the supreme effort to master this system, it will be of no use to him anyway. But given the realities of the profession—one made up to a large degree of graduate students pressed for time and in search of helpful methods simply put—some concessions should have been made. An uncompromising concern for fidelity to a well-conceived theory is admirable
but this fidelity must be balanced with clarity of presentation.

In a milieu already suspicious of linguistic or pseudo-linguistic schemes to improve students' writing and just as wary of any approach that smacks of the "technological," tagmemicists would be well advised to go out of their way to present their paradigm and pedagogy in the most accessible manner. If the theory is as promising as testing indicates and as I personally believe it is, then another formulation, another textbook is in order. It seems perverse to allow such a potentially revolutionary system to remain in obscurity as the property of a few theorists or schools which are perceived by the profession as eccentrics. "Contributing to the world of ideas" is a laudable goal; working those ideas into an understandable, accessible form is even better. Perhaps once the pedagogy of the system is itself clarified, effective teacher training will be assisted as well. Until then, handing the beleaguered teacher a text with some words of exhortation and admonition will not be fruitful.

Finally, work in tagmemics has not seemingly been as visible and available to the profession as it could have been. After an initial flurry of articles in the mid-sixties, report of research in tagmemics has been confined to dissertation abstracts, obscure speech, rhetoric and linguistic journals and scattered seminars. The work of Dr. Richard E. Young, formerly of Michigan but now at Carnegie-Mellon, for example, was reported for the most part in the hard-to-get Studies in
Language and Language Behavior, published by the University of Michigan. It is now only available through the ERIC system; few teachers or graduate students are willing to spend the time necessary to sift through the microcards to ascertain Young's explanations of what has been done and what is left to be done. Until very recently, little about the theory had appeared in the profession's major publications, College English and College Composition and Communication, and much of the current discussion, reflected in James Kinney's article, has been negative. There are enough obstacles in the profession for tagmemics to overcome without contributing to them in this way. The tagmemicist must create confidence in his work, not assume it. His theories are yet to be accepted into the composition canon.

(3) The Problem of Anti-technological/scientific biases

The willingness of the tagmemicists to found and evaluate their system on objective, scientific grounds has won it praise from several quarters. In his review of Young and Koen's study of the tagmemic heuristic procedure, W. Ross Winterowd exemplifies this appreciation of rigorous experimentation and examination,

The humanities are sustained by faith--their glory and their curse. Faith gives the humanist the
ability to endure, but it often diverts him from the systematic testing of his assumptions. We have faith that humane pursuits—including written and spoken composition—are good for people as human beings. We also have faith that our methodologies are sound and that our results are worthwhile.

Our faith keeps us too often from testing our assumptions in any controlled, systematic way. For this reason, among others, the study by Young and Koen is exceptional.\(^2\)

Winterowd's enthusiasm for bringing scientific methods into the profession, however, is not shared by the majority in the profession. If there was ever any doubt about this, it was dispelled in 1969 when *College English* published Robert Zoellner's "Talk-Write: A Behavioral Pedagogy for Composition."\(^3\) Zoellner's monograph elicited a vehemently hostile reaction from the profession, and that interesting episode in the recent history of the profession is here analyzed by Donald C. Stewart:

In a sense, Zoellner was also attacking deficiencies in the current-traditional paradigm's presentation of the composing process, but his approach had little in common with the four already cited [Corbett, Rohman/Wlec, Burke and Pike]. Whereas they
attempted to deal with aspects of cognition, Zoellner introduced a new dimension, physical behavior, into the writing process. Teachers were not ready then, as some still are not, to believe that writing difficulties, particularly in the work of remedial students, have less to do with how their minds work and more to do with the way their muscles have been conditioned. . . . Zoellner's approach is still so original and so fundamental and so far beyond the boundaries of the current-traditional paradigm that most English teachers still regard it with intense hostility. Significantly, Zoellner was the first to recognize that problems with a dominant paradigm underlay resistance to his hypothesis.\(^4\)

Most in the profession seem to view English, literature and composition, as the last outpost, the last humanistic stronghold on the borders of creeping scientism. The idea that the composing process is accessible to an outside observer and is thus chartable and teachable is perceived as an assault on the humanistic conception of art and creativity. Images of computerized geniuses begin to emerge, Shakespeares and Rembrandts programmed by the right combination of psychological probes and environmental stimuli. In other words, tagmemics, whose terminology is drawn somewhat from the physical sciences
and whose substance to some degree is the psychological insights of men like Piaget and Rogers, is perceived as a threat to the romantic notions of creativity cherished in the humanistic tradition.

In a highly polemical exchange of a few years ago, Ann Berthoff and Janice Lauer debated the possible consequences of using the tagmemic heuristic to teach composition students to write. Berthoff, writing passionately against the use of heuristics, warned that "The concept of problem solving serves the belief that the school's function is to prepare citizens for life in the technological society."45 "Problem-solving" or heuristics is not seen by Berthoff as a neutral tool; rather, "Teachers studying heuristics as understood by Sister Janice Lauer will soon discover that a theory of learning as problem-solving requires a view of language as signal code, a notion that converts meaning to 'information,' form to 'medium,' interpreting to 'decoding,' etc. By thus misconceiving of the human use of language, communication theory or, rather pedagogy deriving from it falsely defines the forms of knowing" (p. 93). Berthoff thus seems to understand "problem-solving" in a pejorative mechanical sense—a kind of arithmetical "puzzle-solving" procedure which effectively limits the imagination and undervalues the intuitive faculties of the mind. Lauer's reply basically laments Berthoff's indiscriminate dichotomizing and out-of-hand rejection of the insights other disciplines might yield
for teachers of writing. She concluded, "I would like to argue for pluralism in our thinking. Those working seriously on heuristics are dealing with studies in psychology, philosophy, mathematics and rhetoric as they must, since this is where the important theoretical work is being done. . . . Unless both the textmakers and the teachers of composition investigate beyond the field of English, beyond even the area of rhetorical studies for insight into the nature of the creative process of composition, 'the process of naming the world,' they will find themselves wandering in an endless maze."46

Berthooff's remarks reflect the odd notion that there is a domain belonging peculiarly to the humanities, territory which is paradigmatically off-limits to other disciplines--as if to say the various disciplines are not already hopelessly intertwined and interdependent. Again, here is evidence of tacit acceptance of a current-traditional paradigm which intends to keep the process of discovery, knowing, writing a secret--if only by ruling out research and experimentation in this area. Still, one can understand the hesitancy of a profession to accept an increasingly scientific approach which seems to trade on a number of its own myths: "objectivity," only the quantifiable is true, the mistrust of emotion. Scientism (as opposed to the "scientific method"), with its emphasis on the outward, the physical and physiological, with its pretense of explaining everything and on the basis of
"molecular collisions," is itself a paradigm to be watched carefully; empiricist notions need to be balanced with rationalist ones. This is the point of Susan Wells' recent criticism of both tagmemic rhetoric and Francis Christensen's generative rhetoric of the sentence. In a far ranging indictment of composition theory's tendency to reflect the linguistic status quo, she raises two cautions:

First, and most simply, students naturally and justifiably translate heuristic methods they learn, including the informal heuristics they have learned by osmosis, into tools of explication. If we base students' reading or encourage them to base their own reading, on an empirical foundation, we reinforce those ideas that make them resistant to writing built on any different ground. . . . Second, we should beware of assuming that the forms of discourse that our students are accustomed to reading and expected to write are themselves unproblematic.47

Cautions like those of Berthoff and Wells are, certainly, well-taken; methodologies do mold students' perceptions and worldviews. Perhaps there are no "neutral tools." Yet, there still seems to be a fundamental misunderstanding of what the heuristic is designed to do. Berthoff and Wells seem to regard tagmemics as just part of the general disenfranchising
of the human spirit, of creativity, of the imagination that has occurred with the onrush of science and technology. Anything that smacks of computer-like, mechanical procedure becomes suspicious, for it may turn its practitioners into robots. But isn't this a caution that can be reserved for any theory or methodology--on either side of the question? Any procedure can become "mechanical" and not just those that use scientific jargon (which is more metaphorical than anything else in Pike's system). The degree of "mechanicalness" depends as much on the manner of presentation and utilization as it does on the content of the methodology.

The Kenneth L. Pike who has devised this tagmemic system is the epitome of humanistic concern. He has diligently avoided any atomistic explanation of man's use of language, and he has especially been interested in fashioning a comprehensive, unified theory of man's behavior. A devout Christian, Pike is fundamentally opposed to any mechanistic view of language or man:

Leslie A. White, a vigorous cultural determinist (and formerly a colleague of mine in the Anthropology Department at the University of Michigan) says: "Whether a man--an average man, typical of his group--believes in Christ or Buddha, Genesis or Geology, Determinism or Free Will, is not a matter of his own choosing. His philosophy is
merely the response of his neuro-sensory-muscular-glandular system to the streams of cultural stimuli impinging upon him from the outside."

It has always seemed to me that a weak point in this position was precisely the fact that he bothered to write the book. There is implied, I feel, the belief that in this particular case the book's affirmations have a validity outside of the author's biography, glands and environment—a position not allowed by the book itself. B. F. Skinner mentions this problem as raised by his own brand of materialism: "I have had my lecture. I have no sense of fatherhood. If my genetic and personal histories had been different, I should have come into a possession of a different lecture. . . ."

. . . In my view, Skinner thus destroys the validity of his evident belief in the value of his conclusions; and this type of linguistic legerdemain, concealing the source of his self-confidence as to the possibility of recognizing any truth, then contaminates his views of responsible behavior—and of any potential ethics growing out of it. One's view of ethics, I maintain, has as a component a view of responsibility in the use of language. Loss of the one entails loss of the other."
Of course, one could be a Christian or a humanist and still create a mechanistic system that would ultimately limit and handicap the person exposed to it; nevertheless, Pike's orientation reflects the sensitivity to these kinds of questions that he, as the originator of one heuristic, brings to the debate.

Richard Young, in his address to the 1975 Buffalo Conference on the Composing Process, said it best when he exhorted his fellow composition theorists not to, as it were, bow down before any golden calf of theory. Young and other tagmemicists are not obscurantists; if their theoretical basis is faulty, they want to know about it, and thus Young concludes,

There is no algorithm, no systematic decision-making procedure, that can dictate the choice of one theory rather than another. Informed choice will depend upon informed debate, and this requires that we be clear about our criteria for judgment, that we agree on the meaning of our terms, that we have evidence to support claims about the adequacy of one or another of the theories--the process is familiar to us all. But if we are to carry it out responsibly, much research needs to be done.49

It will only be by patient explanation and corroborating research that tagmemicists and others who operate from a traditionally "non-humanistic" base can open up the profession
to the insights they have to offer.

(4) The Challenge of Comprehensiveness

Finally, tagmemic theory must continue to evolve in order to develop useful methods for dealing with stylistic and grammatical concerns in the composition classroom. In this way it will have come full circle—meeting the current-traditional paradigm on its own grounds: restoring the necessary emphasis on invention and providing teachers with an interesting and fruitful way to deal with the writing process at the level of expression. This aspect of rhetoric is treated only superficially in maxim six of Young, Becker and Pike's text. Work in this area has been understandably overshadowed by the success of the research on invention. But there is a sense that this concern has been left to itself or to the strictures of current-traditional rhetoric; tagmemic research began here and it is imperative that it return here in order to present a unified front to the profession.

Linguistics has long been expected to contribute to this area of rhetoric but has only disappointed. Tagmemics, I believe, is more likely to be of help here than even transformational grammar. Becker and Young have both done extensive work in forming a tagmemic rhetoric of the paragraph.⁵⁰ In addition, Linda Kay Jones has written an exciting, highly suggestive monograph which examines the relationships of sentences and
paragraphs in the development of theme in expository discourse.\textsuperscript{51}

Tagmemics has indeed already come a long way and it continues to have exciting potential. In order to reap a more bountiful harvest, tagmemicists need to be sensitive to the profession's perception of both the content and methodology of their theory, becoming as visible and accessible as possible, while moving ahead toward the refinement of existing elements and the development of a fuller response to the writing enterprise.
Notes


7 Ibid., p. 30.

8 Ibid., p. 31.

9 Ibid.
William J. Kerrigan, Writing to the Point (New York: Harcourt, Brace, Jovanovich, Inc., 1974), p. 4. All further references will be incorporated parenthetically in the text. Writing to the Point is subtitled, "six basic steps," with each step intended to bring the student closer to evolving a theme, as it were, from the inside out. In Step One, the writer begins with an "X sentence" which ultimately serves as a thesis statement for the rest of the paper. Successive steps are designed to develop this "X sentence" into a completed theme.


Ibid., pp. 36-37.


Ibid.


In particular, the tagmemic discovery matrix is being used successfully in stylistic and discourse analysis. See Richard E. Young, "Discovery Procedures in Tagmemic Rhetoric:


22 Ibid.


24 Ibid.


27 Rhetoric: Discovery and Change, p. 120.

28 Young, "Notions of 'Generation' in Rhetorical Studies," p. 6.

29 There are several syllabi available for comparison and examination, some of which were subjected to rigorous analysis and experimentation. Three of the most helpful are: Richard E. Young and Frank M. Koen, Tagmemic Discovery Procedure: An Evaluation of its uses in the Teaching of Rhetoric (Ann Arbor, MI: University of Michigan, NEH Grant No. EO-4238-71-116, 1973) (ERIC: ED 084 517); Lee Odell, "Discovery Procedures for Contemporary Rhetoric: A Study of the Usefulness of the Tagmemic Heuristic Model in Teaching Composition," Diss. University of Michigan, 1970; and Linda S. Flower and John R. Hayes, "Problem-solving Strategies and the Writing Process," College English, 39 (1977), 449-461.

30 Rhetoric: Discovery and Change, p. xi. Further references will be incorporated parenthetically into the text.


34 Young, "Paradigms and Problems," p. 18.


36 Lee Odell, "Another Look at Tagmemic Theory: A Response to James Kinney," College Composition and Communication, 29 (1978), p. 146. Further references will be incorporated into the text.

37 Rhetoric: Discovery and Change, p. 120.


40 Garland Cannon, rev. of Rhetoric: Discovery and Change by Young, Becker and Pike, Language, 48 (1972), 752, 754.

41 Regina Hoover, rev. of Rhetoric: Discovery and Change by Young, Becker and Pike, College Composition and Communication, pp. 66-67.


44 Stewart, "Composition Textbooks and the Assault on Tradition," pp. 172-173.


49 Young, "Paradigms and Problems," p. 33.


51 Linda Kay Jones, Theme in Expository Writing (Lake Bluff, IL: Jupiter Press, 1977).
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TAGMEMIC THEORY AND ITS CONTRIBUTION
TO COMPOSITION TEACHING

by

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Abstract

This report is a study of the contribution of tagmemic theory to composition teaching. The composition profession has suffered from a tacit, unarticulated paradigm which harrassed and harnessed composition research. Tagmemic theory provides the framework for a reorientation of the goals of the profession, its pedagogy and its research into the composing process.

Kenneth L. Pike's tagmemic theory, first employed in the descriptions of formerly grammatically uncharted languages, evolved into a theory designed to account not just for man's linguistic behavior, but for non-linguistic behavior as well. The theory was soon recognized as having significant application to composition teaching. The core of tagmemic theory is a heuristic discovery procedure, visually portrayed as a matrix, which operates as a generating device for invention purposes.

Richard E. Young has pioneered research in tagmemic composition theory and, drawing upon insights from the work of Swiss psychologist, Jean Piaget, has exposed the inadequacies of the "current-traditional rhetoric" which currently prevails and fails to take the composing process seriously. The tagmemic paradigm is a successful synthesis of linguistic and
psychological insights into the complex process of composing.

The vitality and future of tagmemic theory in the profession depends upon four factors: (1) Tagmemic invention must be convincingly demonstrated to be more successful than other schemes currently available in a profession which already discounts the value of invention in composition pedagogy; (2) The tagmemic theory must be expressed in a more accessible form to the profession and a means must be found to train teachers in utilizing it successfully; (3) Tagmemic theory must overcome the anti-technological/scientific bias in the humanities; (4) Tagmemic theory must move beyond invention to establish an equally sound foundation in stylistic and grammatical concerns.