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A Communications Approach to the Accounting Process With Special Reference to General Semantic Concepts.

Loomis Harvey Toler

Louisiana State University and Agricultural & Mechanical College

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A COMMUNICATIONS APPROACH TO THE ACCOUNTING PROCESS WITH SPECIAL REFERENCE TO GENERAL SEMANTIC CONCEPTS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in The Department of Accounting

by

Loomis Harvey Toler
B.S., Atlantic Christian College, 1960
M.B.A., Louisiana State University, 1961
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ABSTRACT

The purpose of this study is to investigate the relationship between accounting and the communication process. It is desired to develop a frame of reference that will provide a unified conception of the process of accounting and, at the same time, a sense of direction for accounting theory.

The approach to this study is to examine the process of communication in order to develop a model that is applicable to accounting. A survey is made of the areas of communication theory and General Semantics in developing this model.

This study indicates that accounting can be explained within the framework of a communication model consisting of the following elements: (1) source, (2) event, (3) originator, (4) encoder, (5) message, (6) channel, (7) receiver, (8) decoder, and (9) feedback. Through supporting assumptions, accounting is related to these elements:

1. Source refers to the accounting entity, which is operationally defined as the unit whose activities are being reported in a particular report.

2. Event refers to the economic fact-event that is perceived as a transaction.
3. Originator refers to the person who perceives the need for information about certain fact-events, and directs that a report be prepared.

4. Encoder refers to the accountant who -- with the assistance of the bookkeeping department and others -- abstracts characteristics from the economic fact-events and encodes them in accounting terminology.

5. Message refers to the financial reports or statements which convey information about the economic fact-event(s).

6. Channel refers to the method and media by which the message is transmitted.

7. Receiver refers to the addressee and/or user of the accounting information.

8. Decoder refers to the person -- generally, the receiver -- who evaluates the accounting message and assigns some meaning or significance to it.

9. Feedback refers to the information that the source perceives from the response of the receiver.

It is suggested that these elements constitute the accounting process. It is further suggested that these elements should be considered as-a-whole rather than each in isolation in order to obtain the true nature of accounting.

This study also indicates that the General Semantic concepts of abstracting and evaluating information are applicable to accounting. It is suggested that economic fact-events have an infinite number of characteristics, but that only a few of these characteristics
are perceived by an observer. Even fewer of these characteristics are included when the fact-event is symbolized in words and figures. Thus, there can be no absolute certainty concerning the information contained in an accounting report.

Evaluation of an accounting report should take into consideration the symbolism of the words and figures in the report and the process nature of the economic reality that produced the fact-events. It is suggested that the extensional devices of (1) dating, (2) indexing, (3) hyphen, (4) quotes, and (5) etc. will tend to orient the evaluator toward the process nature of the accounting data and will help him make a more realistic evaluation of accounting information.

The general conclusion of this study is that accounting is a communication function, and that the communication frame of reference provides a unique and unified conception of the accounting process. This frame of reference also provides a sense of direction for accounting theory, and a basis for both additional research toward a general theory of accounting and for the refinement of the present structure of accounting.
CHAPTER I

ORIENTATION TO THE STUDY

The accounting profession has long recognized the role accounting plays in informing the various interested parties of the financial aspects of the business enterprise. For example, Mason and Davidson say: "The primary function of accounting is to provide information that will help to make economic activity move more smoothly and more intelligently."\(^1\) Another author makes the same point when he states:

Accounting is a means of communication in a complex, financially-dominated society. It provides information for making many decisions, not only by management, but by almost all important groups in society.\(^2\)

"Providing information" implies more than just supplying a mass of data, however. The data supplied must be selected on the basis of what it will be used for and with the required interpretation kept upper-most in mind.

Accounting communications involve the complete communication process, as do all business reports. This means that all business reports include all of the elements of the communication process and that they have a purpose. Professor Leland Brown points out:


Every business report has a purpose to accomplish. It may provide information for making a decision, . . . persuade the reader to a point of view, analyze and interpret data for reaching conclusions, or encourage a favorable attitude.3

The same writer goes on to relate this point of view to accounting reports:

The content of the corporation annual report . . . is selected, arranged, and presented so that it accomplishes varying purposes for its several groups of readers. To the stockholder the annual report gives an accounting of the financial and business operations of the company to keep him interested and satisfied. As a result, favorable attitudes and relations are maintained; . . . To the employee the report gives specific facts and general information about his company.4

Too often, accountants forget, or ignore, this aspect of accounting reports, but the most important function of accounting is "to display the facts as they exist in a particular situation and for a particular purpose."5

If the accountant is to accomplish his purpose, he must necessarily "be concerned with meaning and significance of information and be able to relate it to the goals and objectives of the business."6 If the accountant fails to take the meaning of a report into account, then the report will quite likely fail to achieve the purpose for which it

was designed. As David Berlo so aptly put it: "Too often, writers think that their job is to write technical reports rather than to affect the behavior of their readers." Accountants do affect the behavior of their readers, and they should analyze and write their reports with this in mind.

I. PURPOSE OF THE STUDY

The central theses of this study are (1) that accounting is a communication function, and (2) that to obtain maximum benefit from accounting, an orientation toward the communication process is necessary.

In developing these theses, the author has

(1) Examined the accounting process within the framework of a communication model.

(2) Examined the concept of process and related accounting to the process point of view.

(3) Provided an orientation toward accounting that will aid in the proper evaluation of accounting data so that the best and most meaning will result.

II. BACKGROUND OF THE STUDY

Background of Philosophy

Accounting thought has developed within the framework of our Western culture, relying on the system or systems of evaluation used by the people involved. This system of evaluation -- or thought -- is called the Aristotelian philosophy because of the influence

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Aristotle's teachings had on Western thought. As Wendell Johnson points out:

So influential were his works that our civilization has come to be referred to as aristotelian. There is not one among us who has not been deeply affected by his teachings . . . . we are all essentially aristotelian in our outlook, in our fundamental attitudes, or set, or orientation to life.8

Alfred Korzybski likewise says that Aristotle formulated a system so complete that "it has moulded our orientations and evaluations up to the present."9

Within the past century, however, a new system of evaluation has developed which is often called the scientific method. The scientific method, while retaining much of the aristotelian philosophy, has discarded many of the aristotelian concepts and laws of logic that tended to hinder scientific progress. In this period, science has made rapid strides forward, with many of the advances made as a direct result of ignoring, or disregarding, some previously held concept that denied the possibility of such a step. Einstein's theory of relativity, for example, would have been impossible without disregarding certain concepts of Newtonian physics. Other physical scientists have also discovered that many of their long-held concepts just were not true in the light of present-day knowledge. By disregarding such out-of-date concepts, these scientists have found that

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previously unexplainable phenomena can now be understood and explained.

While physical scientists have made considerable use of the new scientific mode of thinking, the social scientists and the general population have lagged behind. One notable exception has been the development and use of the system of General Semantics.

In 1933 Alfred Korzybski published Science and Sanity, a monumental work that comprised years of study and research. Drawing on the concepts and ideas of many fields of study and the works of many of the great thinkers of history, Korzybski formulated a new system of thought and evaluation. He called his new system of thought a non-aristotelian system to indicate that it was a parallel system to that of Aristotle's, rather than a system to supplant the old philosophy.

This new system of thought made use of the scientific mode of thinking and evaluation, and applied it to the everyday problems of living. Korzybski's avowed purpose was to show that "simple yet powerful structural factors of sanity can be found in science."¹⁰ Retaining those concepts of Aristotle's that remain valid in the light of present-day knowledge, Korzybski rejected only those concepts that lead to an unsafe adjustment or mis-evaluation.

Essentially, what Korzybski rejected were the three laws of Aristotle's logic as they are applied in making evaluations. These laws of logic give us the rules of reasoning embodied in

(1) Identity:  A is A

(2) Non-contradiction:  A cannot be both B and not-B.

¹⁰Ibid., p. 11ix
(3) Excluded middle: A must be B or not-B.

The law of identity says that man is man, truth is truth, etc. This can lead to confusing the "word" with the "thing"; e.g., the word "chair" is confused with the object "chair", or a chair today is evaluated as being the same chair tomorrow.

The law of noncontradiction says that something cannot be both a man and not a man, something cannot be both true and not true, etc. This law can lead to considering a statement or belief as all right or all wrong, excluding the possibility of different interpretations being made by different persons.

The law of the excluded middle says that anything is either a man or not a man, anything is either true or not true, etc. This law leads to the either-or, two-valued orientation which excludes a multi-valued orientation with degrees of probability in evaluations.

When these laws are restricted to the area of logic and the use of syllogisms, they cannot be refuted. It is only when they become a part of our thought processes and are used in making evaluations that they become misleading and wrong.

It is in light of this new system of thought -- the General Semantic (non-aristotelian) system -- that this study is made, with the hope that accountants may become oriented toward making a non-aristotelian evaluation of accounting data.

Background of Accounting Theory

Accounting has long been characterized as being economic and statistical in nature, with aspects of other disciplines occasionally attributed to it. Professor A. C. Littleton states that "the
subject matter of accounting is inescapably economic and its basic methodology is unquestionably statistical in character." Accepted definitions stress the economic and statistical aspects of accounting.

For example, F. Sewell Bray proposed the following definition:

Accounting is the art of recording, classifying and summarizing in terms of units of money the many and diverse economic transactions which day by day enter into the business affairs of society.\(^\text{12}\)

Another widely accepted definition of accounting is the one issued by the Committee on Terminology of the American Institute of Certified Public Accountants:

Accounting is the art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof.\(^\text{13}\)

Even the most recent "authoritative" definition continues to stress the economic and statistical characteristics of accounting:

The function of accounting is (1) to measure the resources held by specific entities; (2) to reflect the claims against and the interests in those entities; (3) to measure the changes in those resources, claims and interests; (4) to assign the changes to specifiable periods of time; and (5) to express the foregoing in terms of money as a common denominator.\(^\text{14}\)

\(^{11}\text{A. C. Littleton, Structure of Accounting Theory (Urbana, Ill.: American Accounting Association, 1953), p. 8.}\)


Significantly, accounting theory and practices have developed along lines suggested by such an understanding of accounting. Rules for classification and reporting of accounting data rely on economic and statistical concepts.

There can be no doubt that accounting is concerned with economic data and that statistical procedures are used in handling this data. It appears to the author, however, that the definitions above, and the theory and practice of accounting, miss an important point: The primary function of accounting is to communicate. Accounting theory and practices, therefore, should be developed within the framework of the communications process.

**Background of Communications Process**

In recent years communications theory has been profitably introduced into various areas of the sciences, both physical and social. The elements involved in the communication process are admirably suited to any area of study in which process is involved. These elements include, as a bare minimum, a source, a message, and a destination. Frequently, another element — feedback — is involved which completes a dynamic system. By relating other process systems to the communication process, the elements can be analyzed separately and then their interrelationships can be studied along the lines suggested by communications research.

There are many possible approaches to communication theory. The approach taken in this study is that a broad, non-mathematical

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conceptual framework of the communication process is appropriate to the study of the accounting process. The author is not primarily interested in the communication model as such, but is interested in the process of communication and how accounting is related to it.

The Concept of Process

Several references have already been made in this study to the word process. Obviously process is a key concept in this study, but what is to be conceived and understood by this term? A dictionary defines process as "any phenomenon which shows continuous change in time." The concept involved here, however, is more than that definition implies.

We live in a process world, a dynamic world, a world in which change is ever present. Cassius J. Keyser says:

For the most obvious, the most embracing, the most poignant and the most tragic fact in the pageant we call the world is the fact of change; in the world of sense, nothing abides.17

Today we know that nothing is static; from inside the atom to the universe as a whole, everything moves. This concept of the world differs from that held up until the time of Isaac Newton. The traditional belief was that the world could be divided into "static entities" and "processes." This belief is still held by many in their evaluations of reality.

16Such an approach was recently suggested in an article by Norton M. Bedford and Vahe Baladouni, "A Communication Theory Approach to Accountancy," The Accounting Review, XXXVII (October, 1962), 650.

Many people today believe that when analyzing a process, they can analyze the component parts, add them together, and the total will be equal to the whole. For example, in analyzing a business, the various elements that go into making up a business will be analyzed and valued separately, then added together to determine the total value of the business. Unfortunately, this is not likely to give the true value; it will probably be somewhat more or less because of the relationships between the elements. In one relationship, the value of one of the elements will be greater or lesser than it would be in another relationship; and this is true of all the elements. In making an evaluation, the relationship of the elements involved cannot be ignored.

This study views accounting as a dynamic process dealing with a dynamic, process reality -- a reality in which relationships are extremely important. Such a view leads to a more realistic interpretation and evaluation of accounting data.

III. APPROACH TO THE STUDY

This study is based on the logical extension of the ideas and concepts developed in other fields of study -- fields of study that to this point have not touched on the area of accounting. There has been no use of these concepts in accounting; therefore, the author has had to rely on library and bibliographical research. The use of these concepts in other areas to which they have been applied was noted, and then by analogy, the concepts have been applied to the accounting process.

It is the opinion of the author that the value of this study
will come from inducing a new orientation toward the accounting process, rather than the destruction of current accounting theory and practices. Therefore, there is no attempt here to develop a new theory of accounting.

IV. LIMITATIONS TO THE STUDY

The major limitation to this study is that there is very little evidence to support the contention that a communications (and General Semantics) approach to accounting is a valid approach. Support for this thesis must come from the fact that communications theory and General Semantics have been applied in other areas, and results from those areas have been encouraging. In effect, this study is an unproven hypothesis that must remain unverified until after it has been put into practical use.

Another limitation is that this study attempts to wed concepts from three distinct disciplines -- accounting, communications theory, and General Semantics. Obviously, there will be many aspects from each area that will be dealt with summarily, or not included because of space limitations. The reader is encouraged to go to the reference materials in order to understand more fully and to appreciate more deeply the appropriateness of these concepts as applied to the accounting process.

Finally, this study is limited to providing an orientation toward accounting and accounting data. Within the framework provided here, much work needs to be done in developing practices and procedures for accountants to follow in order to get maximum benefit from this approach to accounting.
V. ORGANIZATION OF THE STUDY

Chapter I has introduced the subject matter of this study and provided some background information which is considered necessary for a proper understanding of the purposes of the study.

In the following chapter the system of General Semantics is introduced and discussed. This non-aristotelian system of thought and evaluation contains many concepts and techniques of evaluation that can profitably be introduced into any communication context. Certain of these factors will be incorporated into a generalized model of the communication process which will be developed in Chapter III. Other factors -- especially, the evaluational concepts -- can be applied to the evaluation of accounting data. Basically, however, this chapter is designed to give the reader a non-aristotelian orientation toward accounting.

In Chapter III, the process of communication is examined. Various elements and phases of communication are discussed in order to familiarize the reader with the scope and complexity of the communication process. Several communication models are analyzed in this chapter; and from these models and our discussion of General Semantics, a framework is developed within which a communication model of accounting can be constructed.

In Chapter IV, some General Semantic concepts are related to the accounting process. This chapter examines the process by which accounting information is derived from economic events, and offers some suggestions for evaluating accounting information that will prevent a static interpretation of accounting reports.
Drawing from the concepts of General Semantics and communication theory as presented in Chapters II and III, a communication model of the accounting process is developed in Chapter V. In this chapter the accounting process is expanded and related to the communication process with the result that accounting becomes a dynamic and process-oriented discipline. Coupled with the General Semantic techniques of evaluation discussed in Chapter IV, this communication approach to accounting should lead to improved communications of economic data of an accounting entity and to more meaningful analyses and interpretations of such data.

Chapter VI, the final chapter, contains a summary of the study along with the major conclusions of the author.
CHAPTER II

DISCUSSION OF GENERAL SEMANTICS

Accounting literature is replete with references to the importance of accounting as a means of communication; but rarely have accountants investigated the phenomenon of communication itself. Many of the difficulties and problems faced by accountants could ultimately be traced to some faulty conceptualization of the communication process on the part of the individuals involved. It is submitted that a clear understanding of the communication process will lead to a better understanding of the accounting process.

In this, and the following, chapters, we examine certain elements and factors involved in communication. This analysis is designed to make communication more meaningful to accountants and to develop a model of the communication process that can be related to the accounting process.

Because the communication process involves our thought processes at several stages, we will discuss the system of thought and evaluation known as General Semantics in this chapter. This system of thought is designed to train the user toward making the best possible evaluation of events at all levels of thought.
I. NATURE OF GENERAL SEMANTICS

The system of General Semantics was formulated by Alfred Korzybski and first published in 1933. Korzybski deals with a number of the fields of science in his book — psychology, logic, neurology, physics, mathematics, biology, quantum mechanics, colloidal study, psychiatry, and others — but he deals with them synthetically as a means to a completely new way of looking at "the world out there." As Wendell Johnson puts it: "General Semantics may be regarded as a systematic attempt to formulate the general method of science in such a way that it might be applied generally in daily life." Many of the concepts and principles of this system are not new, but their "methodological formulation as a system which is workable . . . is entirely new."

Korzybski was not aiming at some new subject-matter with his system; he was attempting to design a new methodology of evaluation, through which the serious student could acquire a new orientation to the world around and within him. As Korzybski explained his purpose:

General Semantics is not any "philosophy," or "psychology," or "logic," in the ordinary sense. It is a new extensional discipline which explains and trains us how to use our nervous systems most efficiently . . . . It is the formulation of a new non-Aristotelian system of orientation which

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3Korzybski, Science and Sanity, p. xii.
affects every branch of science and life. 4

From its very inception, General Semantics has been directed toward the solving of problems in other fields of study.

There have been a number of definitions of General Semantics advanced, but most fall short of actually showing the nature of this discipline. 5 An excellent description of the nature of General Semantics is that offered by Joseph Mickel:

General Semantics studies the factors that develop the communicative habits of mankind; it studies how those habits affect the individual; it studies how those habits originated; and the future course of these factors and habits are predicted so that individuals can control their effect on themselves. 6

Many of the evaluational concepts that are developed within this system are important to us in studying the communication process. Bess Sondel says that General Semantics is important to us "because it anticipates a field theory of communication." 7 Miss Sondel, along with a number of other writers, has shown the relationship of General Semantics to communications. These writers have consistently pointed out that General Semantics concepts and techniques lead to a better understanding of the communication process.

4 Ibid., p. xi.


Not Meanings of Words

It is important for the reader to note that General Semantics is not a variety of, or in any direct way associated with, what is generally known as semantics. Semantics, properly speaking, is a branch of philology and is concerned with the meaning of words. Joseph Mickel describes the field of semantics when he tells what semanticists do:

Semanticists . . . specialize in studying the referents of words, their statistical frequency, and their referent and meaning changes. They are the technicians who edit dictionaries to include in them the modern referents of the words; they are the philosophers trying to give words in themselves a precise, limited meaning; and they are others who study various aspects of languages without reference to events outside the language.  

For a more complete explanation of semantics, the reader is referred to an excellent article by Allen Walker Read.

Korzybski himself stated that his work developed independently of semantics. In fact, in the preface to the third edition of Science and Sanity, Korzybski says that it is "obvious that a theory of 'meaning' is impossible;" and that he would have avoided the use of the word "semantics" if he had foreseen the present confusion.

The term "General Semantics" was introduced by Korzybski because he saw his system of evaluation as the third stage through which communication has developed. These three stages are

(1) Meaning -- indicating that the word is the thing.

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8Mickel, op. cit., p. 2.


10Science and Sanity, p. viii.
Significance -- indicating that the word is many things.

Evaluation -- indicating that evaluations are necessary because the word is but a symbol for some event in reality.

General Semantics takes into account the living individual, without divorcing him from his reactions or his environment, and allocates him in a plenum of some values; which leads to nonelementalistic evaluations by the individual.

Non-aristotelian Orientation

Korzybski described his system as non-aristotelian to indicate that his system is an adjunct to the Aristotelian system rather than a replacement for it. His thesis is somewhat as follows.

Aristotle synthesized the prevailing pre-scientific assumptions of his period -- which were implicit in the prevailing language -- into a formal system of "logic," "philosophy," etc. Later, Euclid followed the same pattern and synthesized mathematical thought into a system of mathematics. These Greek systems, along with all of those developed therefrom (such as Newtonian physics, classical mechanics, etc.), Korzybski called Aristotelian. These systems dominated the thinking of our Western culture for over 2,000 years and persisted without effective challenge until almost within living memory.

What were the inadequacies of these Aristotelian systems? Chiefly the inadequacies lay in the existence of certain basic, silent assumptions, false to fact, and so deeply embedded in the systems that they eluded observation for centuries. For example, Newton founded his imposing system of physics on the erroneous assumptions that the velocity of light was infinite, that "space" and "time" were absolutes
and hence inseparable, that "simultaneity" was possible, etc. Einstein's theory of relativity demonstrated that these assumptions were wrong. Similar discoveries were made in mathematics, and now Korzybski has completed the revolution by creating a non-aristotelian general methodology of evaluation.

Essentially what Aristotle did was to observe the behavior and the language of the people of his day and of his world. Then he formulated in words the as-if-ness, so to speak, of the behavior and the language of his people. What he said, in effect, was this:

"They act as if, they talk as if, all that they feel and live by might be reduced to three fundamental premises or rules."

These three rules may be called the law of identity, the law of noncontradiction, and the law of the excluded middle. These three basic laws of thought of the people of Aristotle's time have persisted, and even today they continue to mould men's feelings, their thoughts, and their living reactions.

Korzybski felt that these laws of thought were outmoded; that it was time to apply modern, scientific methods of evaluation. Comparing the relationship of language (as well as of thought, memory, etc.) to reality with the relationship of maps to the territories they represent, Korzybski laid down the following three fundamental non-aristotelian premises:

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11Wendell Johnson, op. cit., p. 71.

12See above, pp. 5 & 6 for examples of the application of these laws.

(1) A map is not the territory. Words are not the things they represent. This premise rejects the law of identity and because the law of noncontradiction and the law of the excluded middle depend on the law of identity for their existence, all three basic laws of Aristotle are rejected in this non-aristotelian system of thought and evaluation.

(2) A map does not represent all of a territory. Words can never say everything about anything. There are always certain characteristics about anything that cannot be included in or described by words.

(3) A map is self-reflexive. That is, an ideal map would have to include a map of the map of the map of the map, etc. In our language it is possible to speak words about words, words about words about words, etc. to an infinite level of abstraction.

These premises are developed more fully in the discussion below.

II. REALITY AS A PROCESS

According to General Semanticists, the modern world consists of events and processes rather than of things or entities. This point of view coincides with that of modern scientists who tell us that everything in the universe is composed of atomic structures of various complexities that are interrelated in some way with a variety of electromagnetic waves or energy manifestations. These atomic structures -- made up of oscillating, vibrating electrons -- exist below the perception level of our ordinary senses. Even with our most powerful microscopes, we cannot see all that modern scientists tell us must exist at sub-microscopic levels. If we believe these scientists, then we are believing in a delusion when we view the world about us as static and enduring matter. We must "see" it as a very lively world in process.

Korzybski gave us his view on the nature of the world when he said: "We must visualize the world in general as a submicroscopic
dynamic electronic process and life in particular as an electro-
colloidal process of still much higher complexity." It follows
logically that since the world consists of a vast collection of point-
events, there is no sameness, no identity anywhere, and the principle
of nonidentity rather than of identity must be held.

The objects that we perceive should not be interpreted as a
static entity. Alfred N. Whitehead defines an "object" as the "recog­
nizable part of the event," and Korzybski tells us:

Objects as such could be considered as relations between sub-
microscopic events and the human nervous system . . . we find
that an object represents an abstraction of a low order pro-
duced by the nervous system as the result of the sub-microscopic
events acting as stimuli on the nervous system.

This point of view is further substantiated when Korzybski points
out that:

On the sub-microscopic levels, iron or anything else means
only a persistence for a limited time of certain gross charac­
teristics representing a process (structurally a four-dimensional
notion involving time) which becomes a question of structure.

This process notion of reality leads to the obvious conclusion
that we live in at least three worlds:

14 Alfred Korzybski, "The Role of Language in the Perceptual
R. Blake, Glen V. Ramsey, et al. (New York: The Ronald Press Co.,

15 Korzybski, Science and Sanity, p. 194; also see Johnson,
People in Quandaries, pp. 23, 32, 36.

16 Quoted by Korzybski, Science and Sanity, p. 390.

17 Ibid., p. 20.

18 Ibid., p. 162.
(1) the world of events — the inferential world that scientists tell us must exist beyond our present ability to observe.

(2) the world of objects — the macroscopic and microscopic world that we can observe with our senses and our scientific instruments.

(3) the world of symbols — the world of words, labels, inferences, etc.

Gorman sums up the way General Semanticists describe reality in the following way:

The world is in process, meanings are in process, and language must reflect this changing nature of both the world and the meanings. Language must represent the relational structure of the world; language, meaning, and the world are relative.19

III. THE PROCESS OF ABSTRACTING

One of Korzybski's most significant observations concerns the nature of the process by which we become aware of an "object" in "the world out there" and by which we formulate our approach to that object. General Semanticists call this process the abstracting process.

Abstracting means leaving out, selecting, omitting, etc., and Korzybski chose this term to represent one of his fundamental ideas because, as he puts it: "We see that the term 'abstracting' implies structurally and semantically the activities characteristic of the nervous system, and so serves as an excellent functional physiological term."20 Our sense-abstractions are neurological processes which abstract only certain characteristics out of the whole complex flux of characteristics that comprise the event. We abstract -- i. e.,

19 Gorman, op. cit., p. 37.
20 Science and Sanity, p. 379.
pick out, respond to, are sensitive to, pay attention to, etc. — certain stimuli and miss or cannot abstract the rest. Thus, sight abstracts but one octave out of the whole gamut of ether "waves," and the other senses abstract in an equally limited way.

A person's perception of an event also becomes involved with the emotions of his nervous system. Our senses always abstract "in terms of feelings and sensations of some kind," because they are united as-a-whole in a complete organism that involves conjointly the emotional and intellectual factors, as well as the physical factors. Thus, the word "object" stands not only for "the something out there" — i.e., the physical event — but also for our sense-abstractions about it.

Another element in our perception of an event is the knowledge we already have. One of the central tenets of General Semantics is that the metaphysics which men hold, their theories of knowledge, and their philosophies necessarily end up in their nervous systems as involuntary, or almost involuntary, patterns of reaction. Korzybski referred to this mechanism as a semantic reaction and described it as "the psychological reaction of a given individual to words and language and other symbols and events in connection with their meanings." It follows that our nervous systems must be oriented toward a system of language or thought that is structurally similar

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23 Ibid.
to reality, if we are to correctly perceive and evaluate the events "out there."\textsuperscript{24}

**Levels of Abstraction**

In line with the scientific point of view of reality as a process, Korzybski described various possible levels of abstraction. For example, he first mentions three levels:

The one is the sub-microscopic level of science, what science "knows" about "it." The second is the gross macroscopic daily experience level of rough objects. The third is the verbal level.\textsuperscript{25}

The reader will note that these levels of abstraction correspond to the description, given above, of reality as a process.\textsuperscript{26}

Later on, Korzybski expands his description to four levels of abstraction when he indicates our process of abstracting:

(1) The event, or scientific object, or the sub-microscopic physico-chemical processes, (2) the ordinary object manufactured from the event by our lower nervous centres, (3) the psycho-logical picture probably manufactured by the higher centres, and (4) the verbal definition of the term.\textsuperscript{27}

The definitive number of levels of abstraction is indicated, however, when Korzybski describes his structural differential, a device which represents in three-dimensional form the fact that our knowledge and our words about things leave out many of the characteristics of the actual "event."\textsuperscript{28}

\textsuperscript{24}See below, section on Structure of Reality and Languages.

\textsuperscript{25}Science and Sanity, p. 376.

\textsuperscript{26}Above, p. 22.

\textsuperscript{27}Science and Sanity, p. 384.

\textsuperscript{28}For a description and explanation of the structural differential, see Science and Sanity, pp. 386-411.
refers to at least five levels:

(1) the unspeakable event . . . or the unseen physioco-chemical processes on the sub-microscopic levels which constitute stimuli registered by our nervous system as objects.

(2) the external, objective, also unspeakable, levels which we see with our eyes and other senses.

(3) the unspeakable, psycho-logical pictures and semantic reactions.

(4) the verbal description of our fact-events.

(5) inferences made from the descriptions, followed by inferences about inferences, conclusions, judgments, action, etc.29

Although the structural differential refers to only five levels of abstraction, it indicates that these levels can go on indefinitely in man. In making an evaluation of any fact-event, our mental processes can continue to make inferences as long as we desire before reaching a conclusion, making a judgment, or taking some action. Thus, there is no defined limit to the possible levels of abstraction.

**Higher Order Abstractions**

General Semanticists refer to those unspeakable levels of abstraction as first order abstractions. They are the levels which we see, hear, feel, or experience; they also include those impulses, interests, meanings, and evaluations which originate within ourselves.30

The important point to remember is that these levels cannot be put into words; once words (labels) have been attached to the fact-event, you have moved to a higher order abstraction.

29Ibid., p. 447.

30Ibid., p. 428.
General Semanticists use higher order abstractions in two distinct ways: one is to indicate the level or order of the statement a person is using; the other is as a system of classification. Let us examine each of these uses of higher order abstractions.

Statements — The first use of higher order abstractions has already been indicated in the discussion of the structural differential. At the first verbal level, we have a descriptive statement of, or about, the object. Weinberg refers to these as factual statements, which he defines as "a descriptive statement made after observation (which includes any sensory perception) and verifiable by accepted standards." The reader should carefully note that a factual statement approaches, but never reaches, certainty. (Remember that the abstracting process leaves out details and characteristics at each level).

At the next level upward, a person may make a statement about the previous statement (the descriptive statement). This second statement becomes an inferential statement because it is not the result of an observation. Successive statements abstract further from reality and reach even higher orders of inference until a judgment is formed and a conclusion is reached. The reader may readily note that because each level abstracts from the next lower level, two persons may start with the same descriptive statement and by abstracting different characteristics or details reach different conclusions concerning the "facts" of a situation.

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31 Weinberg, op. cit., p. 32.
Inferential statements — and therefore, judgments and conclusions — go beyond a description of what has been observed. As Weinberg points out:

They have widely varying degrees or probability of being correct because they are not linked directly to observation but represent a jump into the unknown which may or may not take off from verifiable observation. . . . There is nothing wrong with making inferences. . . . The misevaluation arises when we act as if our inferential knowledge were factual knowledge.32

There is no way we can avoid making and using inferential statements because of the nature of the abstracting process. But, as Weinberg indicated, inferential statements must not be identified with factual, or descriptive, statements.

Classification — The second use of higher order abstractions is as a means of classification. General Semanticists classify things by abstracting: that is, instead of remembering (or thinking of) similar characteristics, they abstract (forget, omit) characteristics. The result will be strikingly similar to the traditional method in many cases, but the process of reaching the result is quite different and the evaluation that will be made of a classification may be changed because of the reasoning process involved.

Following the process of abstracting, we find that the first verbal level refers to the name or label we give to the object we have perceived. Moving to the next level, we find a class term to refer to the object; then at successively higher levels, we find

32Ibid.
higher order class terms. Hayakawa gives us an example of this use of higher order abstractions:

Level 1. The level known to science, consisting of atoms, electrons, etc. This is the process level.

Level 2. The cow we perceive: not the word, but the object that our nervous system abstracts from the totality that constitutes the process-cow. Many of the characteristics of the process-cow are left out.

Level 3. The word "Bessie" (cow1): this is the name we give to the object of perception of level 2. The name is not the object; it merely stands for the object and omits reference to many of the characteristics of the object.

Level 4. The word "cow" stands for the characteristics we have abstracted as common to cow1, cow2, cow3, ..., cown. Characteristics peculiar to a specific cow are left out.

Level 5. When we refer to Bessie as "livestock," only those characteristics she has in common with pigs, chickens, goats, etc. are referred to.

Level 6. By leaving out still more characteristics, we can refer to Bessie as a "farm asset." We refer only to those things she has in common with other salable items on the farm.

Level 7. By omitting still more characteristics, we may refer to, or classify, Bessie as an asset.

Level 8. At this extremely high level of abstraction we may refer to Bessie as "wealth," and we have omitted almost all reference to the characteristics of Bessie.33

This example indicates the method of classification used in General Semantics. General Semanticists stress the necessity of realizing that the objects or persons included under general class terms differ from one another and must not be treated as if they were similar.

In all respects.

In a very real sense, General Semanticists are more concerned with the process involved than with the actual classification. That is, they want to know what level of abstraction they are on; then they can move back down the ladder of abstraction (mentally) and relate the word or statement to the object level. This consciousness of abstracting is one of the prime factors in making the correct evaluation of any fact-event.

IV. SYMBOLISM OF WORDS

The above discussion of abstracting leads to an "obvious" conclusion about words, yet it is at this point that most people fail to grasp a significant point in making evaluations. This conclusion is that "a word cannot be the same as an object. It can only represent it. And it represents the object imperfectly, incompletely." In other words, a word is a symbol of the object represented.

The significance of this "symbolism of words" lies in the fact that many people treat words as if they have meaning in and of themselves. Our discussion of the process of abstracting belies this understanding of "words." The reader will recall that the "word" is applied to an event after several levels of abstraction. Certainly, then, the word cannot be the event, which would be necessary for it to have meaning in itself. This may be illustrated in the following manner. Pinch yourself and tell what you feel. Now what

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you say you feel, and your words about it, are obviously different from what you feel at the nonverbal, unspeakable level. To forget this important point can lead to a complete breakdown in communications. For example, if you forget that what someone says (the speakable) and what he actually feels and believes (the unspeakable) are different, you may "misunderstand" him, "hurt his feelings," or "shock" him. You will probably say that you "know" this, but the important point is whether or not you apply it in making evaluations.

A simple device to emphasize the fact that a word represents something in the nonverbal world is Ogden and Richards' "triangle of reference,"35 a triangle with one broken and two solid or unbroken sides. At one corner of the figure is the object or "referent" to which the word refers. At another corner is the thought or "reference" and at the third corner is the word or "symbol" which refers to the referent. The unbroken lines, which run from the referent to the reference and from the reference to the symbol, represent the facts

that (1) there is a relationship between the referent and the refer­
ence, since there is an interaction between the object and the person
referring to it; and that (2) there is a relationship between the
reference and the symbol, since the person who refers to the referent
utters the word as a result of so doing. However, between the
symbol and the referent, there is a broken line to represent the
fact that there is no direct relationship between words and objects.

The discussion of abstracting and the symbolism of words leads
us to another of the important contributions of Korzybski: the
significance and importance of structure.

V. STRUCTURE OF REALITY AND LANGUAGES

The idea of a structural reality in which there is an order and
interrelatedness of events is one of the central concepts of General
Semantics. As we have indicated above, a fact-event occurs but
once. This is a way of stating that no two things are exactly alike
and no one thing remains the same. It is a way of expressing the
process character of reality. Thus, the structure of reality shows
a practically infinite degree of differentiation.

Acceptance of this principle of nonidentity leads to a recog­
nition that there is order among these nonidentical things and in
the process world, because things are ordered and related in any
structure.36 It follows that if reality is only a structure of
interrelated events, then the only possible content of knowledge

36Korzybski, Science and Sanity, p. 56.
and meaning is structural. As Korzybski points out:

We start with the ... premise that words are not the un­
speakable objective level. ... It follows that the only
link between the objective and verbal world is exclusively
structural, necessitating the conclusion that the only content
of all "knowledge" is structural.37

Since knowledge is not a first order abstraction, whether an object
or a feeling, "structure, and so relations, becomes the only possible
content of 'knowledge' and of meanings."38 In order to achieve
maximum adjustment between our verbal processes and empirical data,
we must study structural characteristics of the world first and
then build languages of similar structure. The same procedure should
be used in the construction of any language system.39

Map-Territory

The relationship of language (as well as thought, memory,
"mental images," etc.) to reality may be compared to the relation­
ship of maps to the territories they represent. Korzybski made three
points that every user of words who wants to be understood will
bear in mind:

(1) A map is not the territory it represents.

(2) A map -- verbal or otherwise -- should be similar in
structure to the territory it is intended to represent.

(3) When maps and actual territories have their structures in
common, they have all their "logical" characteristics in
common.40

37Ibid., p. 20.
38Ibid., p. 23.
39Ibid., p. 59.
40Ibid., p. 58; also p. 750.
If we reflect on our languages, we find that at best they can be considered only as maps. A word is not the object it represents; a language should be similar in structure to the reality it is intended to represent; and when a language and reality have their structure in common, they have all of their "logical" characteristics in common. We may conclude that:

The only usefulness of a map or a language depends on the similarity of structure between the empirical world and the map-language. If the structure is not similar, then the traveller or speaker is led astray. . . . If the structures are similar, then the empirical world becomes "rational" to a potentially rational being, which means no more than that verbal, or map-predicted characteristics . . . are applicable to the empirical world.41

This point is particularly important to us in thinking of the communication process, because we use our language in communicating facts and events in reality.

Inadequacies of Languages

Unfortunately, the language we use in everyday communication does not meet the requirements indicated above. There is a fundamental lack of correspondence between the structure of our language and the structure of reality:

The structure of our language . . . is much less highly differentiated [than reality]. Even though the English tongue, for example, contains many thousands of words and many of these have more than one recognized dictionary meaning, yet we are far from having one word for each fact. Each word, and even each dictionary meaning of each word, must do

41Ibid., p. 61.
heavy duty, representing a great number and variety of facts.42

One of the difficulties in communication lies in this simple fact: that there are more things to be spoken of than there are words with which to speak of them.

Johnson also points out another lack of correspondence between our language and reality with respect to variability of structure, or rate of change: "Reality is process-like; language, by comparison, is static. The world in which we live and we who live in it change faster than does the language we use to speak about our world and ourselves."43 The structure of language does change, but not fast enough to keep up with the reality around us. One of the dangers in communication is that the word or language used to describe some fact-event will be out of date with the reality being described; i.e., either the sender or receiver, or both, may evaluate a current happening in terms of a previous period, because the language being used corresponds to a previous reality.

Identification

By its very structure, our language emphasizes the similarities among different objects, persons, acts, etc. which are classified under the same term, while differences are almost ignored. The way in which we use the word accounts for much of this emphasis on similarities and disregard for differences.

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43Ibid., p. 70.
When we say that Miss Green is a teacher, we tend to identify the two levels of abstraction; to forget that the term teacher does not say all that there is to say about Miss Green, and to forget that she may also be classified as a Methodist, a good dancer, a football fan, a buyer of war bonds, etc.\textsuperscript{44}

This confusion of two or more levels of abstraction is called \textit{identification}. The specific case of confusing the word with the object is called the "is of identity." For example, when we say that man is man, or chair is chair because that is what they are, we are identifying the word level with the object level. An amusing example of identifying words with reality is a statement such as, "Pigs are rightly called pigs because they are such dirty animals." Such a statement ignores the fact that we label, or name, the objects which we perceive.

Our subject-predicate language also leads us into another type of mis-evaluation. Whenever we say that a person is pleasant, a story is interesting, or a legal decision is just, we imply that the objects, persons, or events we are speaking of possess the qualities indicated by the adjectives. The fact that different persons will apply different adjectives to the same objects, persons, or events indicates, however, that qualities are the products of relations between an observer and what is observed, rather than objective entities outside of the human body. Korzybski advises us to avoid using language forms which imply that qualities exist in persons, objects, and actions:

\begin{quote}
If we use a language of adjectives and subject-predicate
\end{quote}

\textsuperscript{44}Robert H. Moore, \textit{General Semantics in the High School English Program} (Columbus: The Ohio State University Press, 1945), p. 56.
forms pertaining to "sense" impressions, we are using a
language which deals with entities inside our skin and
characteristics entirely non-existent in the outside world.
Thus the events outside our skin are neither cold nor warm,
green nor red, sweet nor bitter, but those characteristics
are manufactured by our nervous system inside our skins, as
responses to different energy manifestations, physico-chemical
process. When we use such terms, we are dealing with charac­
teristics which are absent in the external world, and build
up anthropomorphic and delusional world nonsimilar in structure
to the world around us. 45

By substituting the term appears for is whenever we are describing
our impression of someone or something, we can avoid this trap of
ascribing qualities to objects or events. Also, by being fully
conscious of the process of abstracting, we can avoid identifications
because we will "know" that the word is several levels away from the
fact-event.

Two-valued Orientation

Another cause of mis-evaluation is the habit of giving only two
possible values to an event. Our language, as used, tends to be
two-valued at best and seldom more than three-valued. 46 That is to
say, we deal largely in terms of black and white, good and bad, fair
and not fair, true and not true, etc. Our language, in other words,
tends to assume an either-or form; to provide for differentiation
into only two categories. As discussed above however, reality is
ininitely differentiated. The General Semanticist advocates a
multi-valued orientation -- the introduction of degree thinking.

45 Science and Sanity, p. 384.

46 Johnson, The World of Words, p. 69.
Instead of good or bad, think in terms of degrees of goodness or badness; instead of true or not true, think of degrees of truth, or probability of truth. While the logician quite correctly says that a thing must be or not be, when we evaluate an event, we do not have all of the characteristics of that event, and so, are not in a position to truly decide all one way or all the other. If we think in terms of degree or probability, we are less likely to be dogmatic in our statements and in our evaluations; we can also adjust more easily if future developments show that our statements or evaluations were wrong.

The problem posed by these remarks on some of the pitfalls inherent in our language system is essentially one of finding a means of adjusting and clarifying our use of the language. We know that our language and our knowledge cannot, because of its abstractive nature, include all about a fact-event. Korzybski has given us some simple rules to follow, however, that will help us overcome this difficulty, and that will help us make the transition from an Aristotelian to a non-aristotelian orientation.

VI. SOME EXTENSIONAL DEVICES

The system of General Semantics is a difficult one for the Aristotelian oriented person to grasp and put into daily use. Because we are trained in a language that is not similar in structure to the objective world in which we live, we must adjust and clarify our language system to aid in obtaining better evaluation and communication.
Korzybski suggested that certain devices be borrowed from mathematics and used to facilitate the transition from Aristotelian to non-aristotelian orientation. These devices tend to make the structure of the language fit the structure of reality. Generally, it is suggested that these devices be attached mentally to the words being read or heard or spoken in order to bring about a habit of mind, rather than physically attaching the device to the word. Korzybski called these extensional devices. They are as follows:

**Dating**

One of the basic assumptions in modern science is that all nature is in process and, therefore, there is constant change. But, many human behavior patterns, opinions, and beliefs tend to remain fixed and static in spite of change in circumstances. Maps of yesterday are used as guides to the "territories" of today. To help overcome this tendency, terms, statements, opinions, and beliefs should be dated. Smith1960 is not Smith1963, dollar1957 is not dollar1963, etc.

Dating will warn us that cause and effect are subject to change with the passing of time. What may have been a useful diagnosis of cause in the past may not apply in any way to the situation today. For example, a business may have been successful ten years ago because of the newness and the novelty of its product; its success today may be because of the resourcefulness and drive of the management. Dating "success" would remind us of this difference.

Dating also reminds us that "permanence" is just one way of
looking at things; it keeps us alerted to change when change could be important to our interests. If a situation is not to our liking, dating would remind us that the situation will change, perhaps to a point more in line with our way of thinking.

The habit of dating all terms and statements makes rigidity of attitudes impossible, and a dynamic (time-minded) orientation habitual. As one writer says:

Date everything — in your thinking, feeling, doing.
Let your language system and your nervous system conform, in this respect, with the structure of all nature. This will make room for transformation in time. This should develop your uncertainty tolerance. This should sharpen your efforts to predict. And this should help you to use words to control and direct change, expected and not expected, in the interests of your purpose.47

Use of the dating device will help to make our use of language conform to our constantly changing reality.

_Indexing_

Another basic assumption in modern science is that everything is unique; that everything is different from everything else. Our language system makes it impossible for us to describe the absolute uniqueness of anything. Words lump together unique individuals under a common name, such as calling all of the absolutely unique individual flowers on a bush roses. Names give a false expression of identity to non-identical objects and events; and this impression, when translated into behavior, results in identical reactions to all individuals to which the name is given. We can overcome this by

47Sondel, _op. cit._, p. 87.
When we index the class word "business" — business₁, business₂, etc. — the word points to the similarities of the class it represents; the index points to the differences left out — to the differences in that particular member of the class of businesses. We classify, of course, on the basis of similarities, but often it is the characteristics left out that really attracts our interest and attention. We don't love our son because he is similar to all other boys, but because he is an individual with his own peculiar characteristics. The same point holds true for other things, and we use indexing to remind us of these peculiar differences that have been left out. This indexing to indicate uniqueness may be referred to as horizontal indexing.

We may also use a vertical index to help clarify the process of abstracting. Korzybski tells us consciousness of abstracting is basic to everything else; therefore, we use the vertical index to differentiate the order (or levels) of abstraction. Attention to the vertical index will remind us

(1) that the word is not the thing; that the verbal world is not the actual world.

(2) that the "sane" order of evaluation is from description to inference; from observable fact to opinion.

(3) that a statement about another statement is on a different level of abstraction than the original statement and the two levels should be differentiated.

(4) of the multi-ordinality of the word or term that is being

\[\text{Ibid., p. 96.}\]
used; that the same word can have different meanings on different levels of abstractions.

Indexing, then, reminds us not only of the uniqueness of the individual object or event; it also reminds us to look at the level of abstraction that we are on.

**Hyphen**

In our previous discussion, we have indicated the relatedness of everything in nature. Nothing is isolated or stands alone. However, traditional language has verbally separated many things that cannot actually be separated; body and mind, intellect and emotions, thoughts and feelings, space and time, and so forth. Also man, in his attempt to understand things, has attempted to analyze them into elements, disregarding the vital interrelationships of these elements. Korzybski called such terms, and thinking, *elementalistic* because they extricate one aspect of a broader situation-as-a-whole and set it apart — *isolated*, and separated from that broader situation of which it is a related part.

Einstein accomplished a revolution in physics by demonstrating that space and time cannot be considered separately and that one should think of *space-time*. Psychologists tell us that hyphenated terms such as body-mind, intellect-emotion, thought-feeling, etc. more correctly designate the relatedness of human behavior than do the separate terms. Korzybski suggests that we use hyphens habitually (at least in our thinking) to connect separators in order to

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show relatedness between the various aspects of the situation-as-a-whole.

Quotes
Whenever we use a term that is "elementalistic," misleading, and/or in general implies a structure not similar to the structure of the "territory," we should put quotes around it. In other words, quotes are used as a warning device toward terms that can easily be mis-evaluated, but which must be used because of the lack of a better term. We should use quotes:

(1) on the silent level to insure consciousness of abstracting inside our own skin; i.e., to keep us from forgetting that every class word is an abstraction, and to alert us to the fact that communication between people is always approximate and never complete.

(2) to point to the differences left out; e.g., when we wish to stress those differences.

(3) when we use a big word that is likely to have a different meaning to the receiver. The quotes act as a signal to indicate that we know their response to this word is not identical to ours and that we must clarify meanings. Democracy, fair, and truth, are such words.

(4) to show that we are not forgetting the word is a separator and therefore incomplete.

(5) to indicate to others that we are using a familiar word to indicate a special meaning.

To sum up then, quotes are a useful warning device in our use of language.

ETC.
The addition of etc. to statements indicates that in the face of the complexity of things and the limitations to our knowledge,
there is always more to be said. This device keeps our statements open-ended; that is, there is more that could be — and should be — added to the statement. The etc. indicates that we do not describe to allness. As one writer points out:

The etc. is the signal to others that we know that our words cannot tell all:

(1) We cannot define a word in its totality.
(2) We cannot describe a thing in its totality.
(3) We cannot characterize a person in his totality. 50

The habitual etc. prevents dogmatism, since it is a constant reminder that, language being an abstractive process, no statement about events or objects in the real world can ever be final.

The device etc. is also useful in helping us avoid some common errors in reasoning about cause and effect: for example, the post hoc ergo propter hoc fallacy (that is, following after, therefore caused by) or some type of chance correlation. Whenever two things happen closely together, it is easy to be misled and to hook things up in our mind that have no causal connections. But, as Keyes reminds us:

The causes of anything and everything are infinitely complex. . . . No matter what we say is "the" reason for something, there are always many underlying reasons that have been overlooked. Since no map represents all of the territory, it is impossible to give a complete answer to any "why." 51

Individuals who learn to use the extensional device etc. will

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50 Ibid., p. 115.
automatically think in terms of "a cause" instead of "the cause."
The use of etc. will remind us that the causes of things are usually very complex and in important things, we will do well to test thoroughly and to dig deeply under the surface.

These extensional devices tend to introduce process, uniqueness, relatedness, and order into our language system, but Korzybski "did not intend these 'extensional devices' simply as things to say by rote or to sprinkle through one's writings. Each of them was intended to point beyond itself to sub-verbal levels -- to observing and feeling and absorbing as directly perceived data the nonlinguistic realities distorted by language." 

The result will be the learning of a general pattern of delaying responses which is more likely to produce proper evaluation. As Weinberg points out:

An awareness on our part that something important probably has been left out, that distortion and bias most likely are present, can, perhaps, diminish the chances of a mis-evaluation of important events. The deliberate and constant use of semantic devices helps to provoke and maintain the vitally important awareness of the dangers of oversimplification, dogmatism and static-mindedness.

Continued practice in the use of these devices will gradually liberate the individual from his "Aristotelian orientations" and make him a better evaluator in all of his everyday life situations.


53Weinberg, op. cit., p. 47.
VII. THE PROBLEM OF MEANING

Throughout this chapter, we have emphasized that no object, person, event, relation, or feeling is exactly like any other object, person, event, relation, or feeling. Because of this lack of sameness between any two of anything, the number of possible referents of words is almost unlimited. Yet the number of words which are in use in our language is limited; and, in comparison with the possible number of referents, rather small. In view of the fact that we have a finite number of words, we are able to refer to an infinite number of fact-events only by using the same word to convey several different meanings under different circumstances.

In spite of the fact that every day nearly everyone uses the same word to convey different meanings, the idea still persists that each word has a "right" meaning; and that, if diligent search is made, that meaning will be found. I. A. Richards discusses this belief and expresses the idea that the cause of much misunderstanding of language is:

the Proper Meaning Superstition. That is, the common belief -- encouraged officially by what lingers on in the school manuals as Rhetoric -- that a word has a meaning of its own (ideally, only one) independent of and controlling its use and the purpose for which it should be uttered. This superstition is a recognition of a certain kind of stability in the meanings of certain words. It is only a superstition when it forgets (as it commonly does) that the stability of the meaning of a word comes from the constancy of the contexts that give it its meaning.

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Some implications of the fact that the same word does not always carry the same meaning are discussed by Ogden and Richards:

Normally, whenever we hear anything said we spring spontaneously to an immediate conclusion, namely, that the speaker is referring to what we should be referring to whenever speaking the words ourselves. In some cases this interpretation may be correct . . . But in most discussions which attempt greater subtleties than could be handled in a gesture language, this will not be so.55

Since the same word may convey different meanings to different persons, it is apparent that there is always a possibility that words used by a speaker or writer may not convey his meaning to the listener or reader. If the word has different referents for the speaker or writer and the listener or reader, misunderstanding rather than communication will result.

Our interpretation of a word (or other symbol) is our psychological reaction to it, as determined by our past experience in similar situations, and by our present experience.56 Another writer tells us:

For communication to take place, there must be a certain amount of experience common to writer and reader. It is in this common or overlapping experience that words get meanings in discourse. The fact that no two persons have any experience precisely identical makes full or perfect communication impossible, and creates the necessity for interpretation. In any discourse, then, the meaning of a word depends upon its total incidence in the past experiences of writer and reader; and upon the situation in which it is being used.57

55Ogden and Richards, op. cit., p. 15.
56Ibid., p. 244.
57Moore, op. cit., p. 79.
For effective communication to result, both the source and the receiver of the message must take into consideration the experiential background of the other and the conditions under which the message is delivered.

Meaning in Context

The term context is often employed to refer both to the conditions surrounding the use of a word, and to the other words which precede and follow the word in discourse. The different types of context may be classified as physical, psychological, and verbal.

The place where words are spoken or written, the time when they are spoken or written, and the activities going on around the speaker or writer make up the physical context. The experiential background, the present mood of the speaker or writer constitute the psychological context. The words which are used with any one word or group of words make up the verbal context. Usually, of course, all of these contexts are involved when a word is used. Bronislaw Malinowski referred to the importance of context when he wrote:

A statement, spoken in real life, is never detached from the situation in which it has been uttered. For each verbal statement by a human being has the aim and function of expressing some thought or feeling actual at that moment and in that situation, and necessary for some reason or other to be made known to another person or persons -- in order either to serve purposes of common action, or to establish ties of purely social communion, or else to deliver the speaker of violent feelings or passions. Without some imperative stimulus of the moment, there can be no spoken statement. In each case, therefore, utterance and situation are bound up inextricably with each other and the context of situation is indispensable for the understanding of the words. Exactly as in the reality of spoken or written languages, a word without linguistic context is a mere
figment and stands for nothing by itself, so in the reality of a spoken living tongue, the utterance has no meaning except in the context of the situation.58

While the above remarks were primarily in reference to the spoken word, context is also an important ingredient of meaning in a written expression; but verbal context assumes greater importance here. In written expression, "the reader must depend to a large extent on verbal context to interpret the meaning of words."59 The writer must, if he really wishes to convey his ideas to a reader, "supply a verbal context which will make as clear as possible the meaning of words the understanding of which is essential to accurate interpretation."60

To this point, we have stressed the fact that a word may, in different situations, have different meanings and that readers or listeners must evaluate the context of the word if they are to interpret its meaning with any degree of accuracy. We have also pointed out the necessity of the user of words to provide a context of such a nature that the words he speaks or writes may be understood by his audience. Let us now examine meaning as it is understood by General Semanticists.

**General Semantics Approach to Meaning**

According to General Semanticists, meaning is inextricably

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59 Moore, op. cit., p. 83.

60 Ibid., p. 84.
bound up with symbolism, for symbols are signs which stand for something. If signs do not stand for something, then they are meaningless signs.

Our discussion of the abstracting process shows that words are symbols -- standing for some fact-event in reality. However, not all of the words we use can be considered as symbols, or valid words: "They are empty noises when they do not refer to anything so far as the external world is concerned." Because many of our so-called "words" have no logical existence, because they are self-contradictory, or have no physical existence -- since they do not represent something in the external world -- General Semanticists emphasize the operational and extensional definitions as the basis for arriving at the meaning of a word. There are three types of definitions that could be considered the "most important": the intensional, the extensional, and the operational. General Semanticists are most concerned with the last two definitions.

**Intensional Definitions** -- Intensional definitions are based on verbalizations, associations, etc. with disregard for observation. They are generally couched in subject-predicate language which ignores relations, differences, and the asymmetrical relation between observer and observed. The so-called intensional definitions are far removed from reality and are only words about words; they emphasize

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63 Ibid.
connotations. As Gorman puts it:

They are really definitions by postulation, with no facts secured by empirical science. . . . The intensional definition consists of the qualities possessed by an object; since science today does not recognize qualities as being possessed by objects, these definitions are meaningless.54

For these reasons, General Semanticists do not accept intensional definitions as being adequate to give meaning.

Oliver L. Reiser tells us that much of the lack of accuracy in our use of words arises from the fact that:

... men will persevere in the opinion that because they have a word, there must be a reality which corresponds to the word. Thus through riefication and projection of concepts we create verbal fictions; by abstraction and hypostatization of our ideas we make things out of functions or forms of behavior. This is illustrated by such a term as "consciousness," "force," "space," "justice," "democracy," and many others. In general, we give air nothings a local habitation and a name. This may be quite harmless in poetry; but it is vicious in science.65

Whenever we are dealing in facts in our communications, these intensional definitions cannot serve our purpose. What we need are definitions that have meaning in reality.

**Extensional Definitions** -- Quite the opposite of intensional definitions, extensional definitions are verbalized only after observation and investigation. In extensional definitions, denotation is emphasized; these are real definitions since they are definitions by inspection based on facts derived from empirical science.66

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54 Gorman, *op. cit.*, p. 60


The extensional method is the only method which is in accordance with the structure of reality and our nervous systems, because extensional meaning consists of the object to which the term may be applied. Consciousness of abstracting helps us to apply extensional definitions, because to get meaning, we go back down the ladder of abstraction (mentally) to the object resulting in the real definition of the word.

**Operational Definitions** -- Operational definitions are really a certain type of extensional definition whereby we define a thing by telling what to do to experience the thing defined; e.g., we define a cake by telling how to make one. Operational definitions were first described by P. W. Bridgman as they are used in physics.67 They have been adopted by General Semanticists and elaborated on somewhat.

The operational approach states that every concept must be defined in terms of its operations. If one knows what the concept means, then he knows the operations that are necessary to produce an instance of the concept; "the concept is synonymous with the corresponding set of operations."68 Rapoport tells us that to define something: "Place a thing to be defined in a class; then name the properties which distinguish it from the other members of its class."69


68Ibid., p. 5.

The operational definitions do this because the operations would serve to distinguish one concept from another.

The operational approach also recognizes that new kinds of experience are always possible. As new occurrences are experienced and as these are expressed in terms of operations, new concepts are formed. Thus, the operational approach to meaning is consistent with the process nature of reality and allows meanings to change as necessary to keep the structure of our language in correspondence with the structure of reality.

**Undefined Terms** -- Not all terms can or should be defined. All language systems depend ultimately on a few undefined terms. We can consider language as names for entities which, in reality, are relations between the entity and the human nervous system, or as names for all other types of relations. One man, Bill, cannot communicate to another man, Jack, exactly what he abstracts unless Jack knows the meaning of the symbol or word which Bill uses to symbolize the abstraction. The meaning must be given by a definition, the meaning of which must be given by still another definition. Ultimately, a set of terms must be reached which could not be further defined because of a lack of words. In all linguistic schemes, the meaning of a word depends on the meaning of other words defining it; and this relation ultimately depends on the "multi-ordinality of the undefined terms which at a given point cannot be elucidated further."70

Multi-ordinal Terms — Not only are there undefined terms in the General Semantics theory of meaning, but there are multi-ordinal terms. These are words which have no meanings of themselves, but only in context. In different contexts, or on different levels of abstraction, they have different meanings, analogous meanings. Some of these words are "yes," "no," "true," "false," "existence," "is," "relation," "knowing," "fair," etc. Multi-ordinal terms are among the most important we have, for they allow great freedom in expressing ourselves, but we must be conscious of the different contextual meanings of such terms and evaluate them accordingly.

Thus, it would seem that the meanings of words or other symbols are best given according to experienced objects or processes, by enumeration or description, and in the case of multi-ordinal terms by context. But we must remember that meanings involve the emotional as well as the intellectual factors and that ultimately meanings are really semantic reactions that are influenced by education, environment, language and structure.

VIII. SUMMARY COMMENTS

This chapter has coped with the task of defining and explaining the system of General Semantics. Consideration has been given to certain formulations and techniques of evaluation that were originally written in terms of sanity and the individual's adjustment to reality. But these same concepts should prove useful in the preparation and

evaluation of any type of communication. Some of these factors are used in developing a model of the communication process in the following chapter. Also, in Chapter V, we relate some of these concepts to the accounting process and to the evaluation of accounting data.

The reader is warned that this discussion has been severely restricted by space limitations. (Korzybski used over 800 pages to describe his system). It is strongly recommended that the reader go to the pages of *Science and Sanity*, not only to appraise this writer's interpretation of what Korzybski wrote, but also to begin his own training in this non-aristotelian semantic discipline.
CHAPTER III

THE PROCESS OF COMMUNICATION

The basic hypothesis of this study is that the accounting process can be related to the communication process. In order to accomplish this, however, we must first examine the process of communication and develop a framework, or model, that is applicable to the accounting process.

Communication, of course, is a multi-ordinal term that assumes its meaning from the context in which it is used. As one writer points out, "We use the word 'communication' sometimes to refer to what is ... transferred, sometimes to the means by which it is transferred, sometimes to the whole process." In this study, we are interested in the process by which communication occurs.

We can say that communication is not something that exists; it is something which occurs. Each occurrence differs in some ways from every other occurrence, but we can isolate certain elements and phases that all communication events appear to have in common. This chapter is concerned with an analysis of these ingredients and their interrelationships in the communication process.

I. THE PROCESS VIEWPOINT

The theory of communication reflects the process point of view. Communication theorists reject the idea that reality consists of events that can be separated from all other events. Relating this point of view to communication, they argue that "you cannot talk about the beginning or the end of communication or say that a particular idea came from one specific source, that communication occurs in only one way, and so on."³

Nevertheless, in order to discuss a process, we must arrest the dynamic of the process and discuss elements. This leaves out the interrelationships among the elements, it separates things that may not be separable, and it ignores the fact that these elements never operate independently; yet, we have no choice if we are to analyze a process. We must remember, however, that we are not including everything in our discussion. With this process point of view established in our mind, we can now examine the communication process.

II. THE PURPOSE OF COMMUNICATION

In analyzing the communication process, one of the first questions we need to ask is, what did the communicator intend to happen as a result of his message? What was he trying to accomplish, or in psychological terms, what response was he trying to obtain? In brief,

²Above, p. 9.
what was the purpose of the communication event?

Aristotle defined the study of communication as the search for "all the available means of persuasion." He indicated that a speaker might have other purposes, but he clearly implied that the prime goal of communication was persuasion, an attempt to sway other men to the speaker's point of view.

During the eighteenth century, the concepts of faculty psychology (which attributed separate faculties to the mind and the soul) invaded communication:

By this theory, one purpose of communication was informative — an appeal to the mind. A second was persuasive — an appeal to the soul, the emotions. A third was entertainment, and it was argued that we could classify the intentions of the communicator, and the supporting material he used, within these categories.

While faculty psychology is no longer supported by psychologists, its remnants still exist in the definition of communication intent. For example, it is popular today to distinguish between education (inform), propaganda (persuade), and entertainment in establishing the purpose of a given message. In relatively few instances will there be found just one of these "purposes"; rather there will generally be found an intent to inform and persuade, entertain and inform, and so on. While there may be some merit in making these distinctions in the classroom, behavioral scientists tend to take the position that the organism can be analyzed more fruitfully if

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5Berlo, op. cit., p. 8.
we do not think about these entities (mind and soul) as operating unto themselves.

Analyzing communication from the behaviorist's point of view, David Berlo says that our purpose in communication is "to alter the original relationship between our own organism and the environment in which we found ourselves." The same writer goes on to say that:

Our basic purpose in communication is to become an affecting agent; to affect others, our physical environment, and ourselves; a determining agent, to have a vote in how things are. In short, we communicate to influence -- to affect with intent.

This approach to the purpose of communication indicates that the communicator intends to cause some response by the receiver. Another writer accepts this point of view when he says that communication may be defined as "any initiated behavior on the part of the sender which conveys the desired meaning to the receiver and causes the desired response behavior from the receiver."

If we assume that the purpose of communication is to affect a response, two questions are raised: who are to be affected, and how are they to be affected? These two dimensions of purpose are important because someone other than the intended receiver may receive the message and make a different response from that intended by the sender. Also, the intended receiver may receive the message,

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6Ibid., p. 11.

7Ibid., p. 12.


9Berlo, op. cit., pp. 15-16.
but make a response different from that intended by the sender. Communication will have occurred in these instances, but the purpose of the communication will not have been fulfilled. It is particularly important to keep these points in mind when investigating an ineffective or unsuccessful communication. The answer to the lack of success may lie within the intended response (or purpose) of the sender and the response actually elicited from the receiver.

It follows from the above analysis that purpose and audience cannot be separated. Therefore, we can conclude that the purpose of communication is to elicit a specific response from a specific person or group of persons.

III. PHASES OF COMMUNICATION

For purposes of analysis, the communication event can be divided into four phases: (1) the introspective phase, experienced by the communicator; (2) the encoding stage; (3) the transmission phase; and (4) the inference phase, experienced by the communicatee. While some of these phases may occur almost simultaneously, it is convenient to discuss them separately in order to "see" what is involved in the communication act.

The Communicator's Introspective Phase

The introspective phase involves the sender's response to stimuli which results in his conception of a need to transmit some fact.

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idea, feeling, course of action, etc. These stimuli may come from within or without the communicator. As William Haney points out:

Man always acts in response to some stimulation. These happenings may occur outside the person, as for example, the scene of a boy digging for worms, the roar of a plane overhead, or the aroma of frying bacon. Or they may occur within the individual as, say, a feeling of nausea or euphoria, a memory, the "flash" of an insight, etc.  

The communicator, following the abstracting process, evaluates the characteristics of the fact-event that he has observed and derives both the reason for communicating and the characteristics of the event that he will attempt to transfer to the receiver. It is in this introspective phase that the communication process "assumes its purposive nature." We may say that this phase constitutes the initial step in the development of a communication event.

The Encoding Phase

Having conceived the need for a communication event and deciding on his intended purpose, the communicator's next step is to develop a message that will convey his information or ideas. This is the encoding phase, and it consists of selecting the words or other symbols that will represent the fact-event and arranging them into a message.

At this point, the communicator is faced with the problem of

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11 This phase involves the process of abstracting, as described above, pp. 22-29.


the lack of precision of any language — whether it is English, Russian, and so forth, or some specialized language system, such as mathematics or accounting. As discussed earlier in this study, a system of language is not — and cannot be — completely in step with reality.\textsuperscript{14} Therefore, the communicator is compelled to prepare his message with symbols that cannot indicate all that he would like to transfer to the receiver. Because of this limitation, the encoding phase assumes considerable importance in the communication event. Selection of the symbols (or words) and their adaptation into a message must be done with due regard for their inexactness in indicating meaning. The communicator must also select symbols that are familiar to the receiver or, at least, place the symbols in a context which will indicate their meaning to the receiver, if he expects to achieve an effective communication.

To encode a message that expresses our purpose, we must possess the necessary encoding skills. As Berlo points out:

If we are to write our message, we need to have a vocabulary adequate to express our ideas. We want to use words that express our meaning most clearly. . . . Given a vocabulary we have to understand how to put our words together most effectively. . . . We have to arrange our words so that our meaning is clear.\textsuperscript{15}

The same points hold true if we are using symbols other than words. That is, we must choose symbols that will express our ideas best and arrange them in their most effective order. For example, a mathematical formula contains symbols that are arranged in a certain

\textsuperscript{14} Above, p. 33
\textsuperscript{15} Berlo, op. cit., p. 44.
order, and this orderly arrangement transfers meanings between mathematicians. If the symbols are disarranged, the meaning of the formula will probably be lost.

Of course, this study is not primarily interested in the methods and techniques of good writing. It is important to realize however, that the linguistic facility of a communicator is an important factor in the communication process. We are limited in our ability to express our purposes if we do not have the communication skills necessary to encode accurate messages. Such deficiencies also limit the ideas that are available to us, and limit our ability to manipulate these ideas — i. e., our ability to think.16

Summing up briefly, the encoding phase involves the selection of the symbols to reflect our thoughts, and the arrangement of these symbols into a message that can be transmitted and that can be understood by the receiver.

The Transmission Phase

The transmission phase is essentially a technical problem — one of selecting a channel and releasing the message to the receiver. The communicator may choose either aural or visual signals to carry his message; and of course, there is a wide array of transmission media available for him to select as the carrier of his message. Some of these media are the voice, hand signals, flags,

letters, reports, radio, telegraph wires, newspapers, books, and others. Generally, the communicator will select the medium that he thinks will transmit his message most effectively and most precisely, but there may be other considerations. Berlo lists a number of things that determine media selection:

Selection is limited by (a) what is available, (b) how much money can be spent, and (c) what the source's preferences are. Other determinants of channel selection are (a) which channels are received by the most people (at lowest cost), (b) which channels have the most impact, (c) which channels are the most adaptable to the kind of purpose which the source has, and (d) which channels are most adaptable to the content of the message.17

The channel for most routine messages is generally established through custom or personal preference of the communicator. For an out-of-the-ordinary message, or when re-examining the ordinary message route, the criteria above should receive the careful attention of the communicator. Careful selection of the channel can help to improve the chances of a successful communication.

A critical factor which is related to the transmission phase, and which often causes mis-communication, is noise. Noise may be defined as "disturbances which do not represent any part of the message from a specified source."18 The relationship of this concept, say, to radio transmission is readily apparent: noise is the crackling of static, the hum of the receiver, or any other form of aural disturbance which is comingled with, but not a part of the message

17Berlo, op. cit., p. 65.
18Cherry, op. cit., p. 121.
In human communication, noise is any distortion comingled with the message. For example, in face-to-face communications, the facial expression of the communicator might cause meaning distortion; in written messages, positioning of information within the message or placing undue emphasis (perhaps by size or style of type) on parts of the message could distort the meaning of the message and would, therefore, be considered noise. Or the obliteration of certain words in the message, perhaps through the smearing of the ink, would constitute noise. If there is any "noise" present in a message, the response of the receiver may bear no resemblance to the response anticipated and desired by the communicator.

Thus, while the transmission phase includes the technicalities of the physical transfer of the message, the communicator should still consider the choice of channels as a serious factor in the communication process. He should also eliminate as much "noise" from his message as he possibly can in order to increase the likelihood of his purpose being fulfilled.

The Communicatee's Inference Phase

The inference phase is characterized by the receiver's decoding of the message and assigning meaning to it. To the extent that the receiver's response conforms to that anticipated by the sender, we can say that communication has been effective or successful. If the response does not conform to that anticipated by the sender, communication will have occurred (because a message has been transmitted and received) but the purpose of the communication will not have been
fulfilled and we can say that the communication was ineffective or unsuccessful.

The inference phase involves many of the aspects of the communicator's introspective phase. Both the sender and the receiver are responding to some stimuli, and both must evaluate that stimuli and assign meaning to it; i.e., they both go through the process of abstracting. This is called the inference phase, however, because the receiver is generally evaluating information about events which he has not observed; therefore, he is on an inferential level of abstraction.19

There are several factors that condition the meaning a receiver will assign to a message, and thus, his response to that message. Some of these factors are his experiential background, his attitude, his prejudices and biases, his power to deduce, and of course, the inability of the symbols to convey all of the information about the fact-event. Probably the most important of these factors is the experiential background of the receiver.20 As one writer points out:

A communicator can probably never convey the message he intends. He can only arouse in the listener a concept which has been developed in that listener through experiences with objects or persons which he has related to the symbols used by the communicator. There is probably always some difference between the concept evoked and the concept intended.21


20 These same factors are equally applicable to the communicator in his perception of the fact-event and his encoding of the message.

21 Carl H. Weaver, "Measuring Point of View As a Barrier to Communication," The Journal of Communication, VII, No. 1 (Spring, 1957), 5.
One of the principal problems of both the sender and the receiver of a message is to reduce this difference between the concept evoked and the concept intended. One of the ways they can reduce this difference is for each of them to consider the experiential background of the other. The sender can select and arrange his symbols according to his knowledge of the receiver's background. The receiver, on the other hand, can evaluate the message in light of his knowledge of the communicator's background. The receiver should also keep in mind the limitations of a language in communicating meaning, and of course, his own shortcomings in interpreting a message.

The inference phase also involves the communicatee's feedback to the communicator -- that is, the translation of the message into an overt or tacit response. Feedback may take the form of another message, some course of action taken by the receiver, or a silent acceptance or acquiescence of the message. Whatever the form of response, feedback "provides the source with information concerning his success in accomplishing his objective. In doing this, it extends control over future messages which the source encodes." Thus, feedback acts to complete a circular and dynamic process, whereby the sender can determine how well he is doing in accomplishing his purpose. The source also evaluates the feedback from his message in order to determine the need for another message, and if needed, the contents of such a message. We can say, therefore, that the receiver exerts a certain amount of control over future messages by

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22 Berlo, op. cit., pp. 111-12.
the response he makes to the initial message. Thus, the inference phase plays a vital role, not only in a particular communication event, but also in the continuing process of communication.

**Interrelationship of the Phases**

We have separated the communication act into four phases for discussion purposes, and we have indicated that there is a certain sequence to these phases. The reader is cautioned, however, that communication is a circular process — that is, we have started with the sender and ended up — via feedback — at the sender. Obviously, we could have analyzed the communication act from the point of view of the receiver, and the phases would have come in a different sequence. The point is, all of these phases are involved in the act, but it is the overall process that is important and not the sequence of the phases as they might be discussed.

These four phases are interrelated to a considerable extent. For example, the encoding and transmission phases may occur almost simultaneously, and either phase may influence the other. Some types of messages can only be transmitted through certain channels — for example, the spoken word cannot be transmitted in a letter or other written material; or, if the transmission medium has been selected, then the message must be encoded so that that particular medium can carry it.

We have already indicated the close co-ordination that is needed between the sender and the receiver if there is to be effective communication. In fact, the communication concepts of source and receiver are dyadic; i.e., they depend on each other for their
definition. A source cannot be defined without defining a receiver, and a receiver cannot be defined without defining a source.  

Of course, the encoding phase is a direct continuation of the introspective phase, as illustrated by the process of abstracting. Thus, there is an interdependence of these phases that cannot be denied or disregarded.

IV. SURVEY OF COMMUNICATION MODELS

Instead of analyzing the communication event in terms of the phases involved, a number of writers have developed models of the communication process — describing it, listing its ingredients, etc. None of these models can be said to be "right" or "true," but we can gain some insight into the process of communication by examining some of them.

Aristotle

One of the earliest communication models came from Aristotle. He said that there are three ingredients of communication: the speaker, the speech, and the audience. He meant that each of these elements is necessary to communication, and that we can analyze the process under the three headings of (1) the person who speaks, (2) the speech that he makes, and (3) the person who listens.

This model is restricted to the person-to-person level of communication analysis, but it contains what may be considered the minimum

\[\text{Ibid., p. 108}\]

\[\text{Roberts, op. cit., p. 14.}\]
framework around which to analyze communications. Most of our more recent models contain, or at least imply, these elements of Aristotle; but generally, they are somewhat more complex.

**Shannon-Weaver**

One of the most used models in describing the communication process is the one developed by Claude Shannon and Warren Weaver. They said that the ingredients in communication include (1) a source, (2) a transmitter, (3) a signal, (4) a receiver, and (5) a destination. This model was developed for use in electronic communication, but it has proven very useful in describing human communication.

By translating the source into the speaker, the signal into the speech, and the destination into the listener, we have the Aristotelian model, plus two added ingredients — a transmitter which sends out the source's message, and a receiver which catches the message for the destination. This model permits an analysis of the communication process where the persons involved are not in close proximity to each other and must have assistance in the transmission of a message. Thus, the communication network is extended and additional elements must be analyzed.

**Schramm**

Moving to still a broader level of analysis, Wilbur Schramm developed a model to describe mass communications. He listed as

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elements of communication: (1) a source, (2) an encoder, (3) a signal, (4) a decoder, and (5) a destination. It is readily apparent that this model is quite similar to the Shannon-Weaver model, with Schramm substituting an encoder for a transmitter and a decoder for a receiver. Of course, the basic difference is that Schramm was concerned with human communication, and so, chose terms that would indicate the human components in the system.

Schramm pointed out that "communication always requires at least three elements -- the source, the message, and the destination." However, he added that the source could be a person or a communication organization, and that the destination could be a person, a group, or a mass audience. In order to de-personalize the concepts of "source" and "destination," Schramm had to add the behavior-forms of encoder and decoder to his model. By combining the concepts of source and encoder, and decoder and destination, this model could be used to describe person-to-person communication; or, by separating these concepts, the model could be used to describe mass communications or communications at the organization level. Thus, this model can be used in analyzing communications at various levels.

Schramm also pointed out one particularly significant aspect of human communication. That is, the field of experience of the source and the field of experience of the destination (this is at


27 Ibid., p. 3.
the individual level) must overlap to some extent for communication to take place. If the two fields of experience overlap a great deal, communication will be easy; if they overlap just slightly -- that is, if the experiences of the source and destination have been strikingly unlike -- effective communication will be difficult; and if there has been no common experience, then communication will be impossible. Thus, there must be some common ground for communication to take place.

Westley-MacLean

Bruce Westley and Malcolm MacLean developed a model that bridges the gap between face-to-face communication and mass communication in a very simple manner. In this model, the simplest type of face-to-face communication is described: a person, A, communicates to another person, B, about some object, X. In such a situation, B is in close proximity to both A and X, and can receive and act upon the information transmitted to him; and he can keep himself oriented to the events around him.

However, when the As and Xs are outside the range of B, there is need for another role, C. C is conceived of as one who can select the characteristics from object X which are appropriate for B's need satisfactions or problem solution, transform them into some symbol containing meanings shared with B, and transmit such symbols

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28 Ibid., p. 6.

by some channel to B. 30

In face-to-face communication, the ABX model indicates the two persons and the object involved in the communication event. However, in the ABCX model, which describes mass communication or an information organization, ABCX represent the elements of the communication process. A represents the source, which may be a person, a group of persons, an organization, etc.; B represents the destination, which also may be a person, a group, an organization, etc.; X represents the object, fact, event, etc.; and C represents the agent of A or B, or perhaps both, in the communication process. For example, C could be a newspaper reporter, an information officer for some organization, an accountant, etc.

This model relies on the multi-ordinality of the symbols in the model; but if the reader remembers to shift from one level of abstraction to another one, this model neatly sums up the major elements of the communication process, at any level of analysis.

Johnson

Wendell Johnson takes a different approach in describing the communication process. He lists the stages of what goes on in the process of communication:

1. An event occurs (any first order fact . . .)
2. which stimulates Mr. A through eyes, ears, or other sensory organs, and the resulting
3. nervous impulses travel to Mr. A's brain, and from there to his muscles and glands, producing tensions, preverbal feelings, etc.,

30 ibid., p. 33.
4. which Mr. A then begins to translate into words, according to his accustomed verbal patterns, and out of all the words he "thinks of"

5. he "selects," or abstracts, certain ones which he arranges in some fashion, and then

6. by means of sound waves and light waves, Mr. A speaks to Mr. B,

7. whose ears and eyes are stimulated by the sound waves and light waves, respectively, and the resulting

8. nervous impulses travel to Mr. B's brain, and from there to his muscles and glands, producing tensions, preverbal feelings, etc.,

9. which Mr. B then begins to translate into words, according to his accustomed verbal patterns, and out of all the words he "thinks of"

10. he "selects," or abstracts, certain ones, which he arranges in some fashion and then Mr. B speaks, or acts, accordingly, thereby stimulating Mr. A -- or somebody else -- and so the process of communication goes on, and on.

This model takes into consideration the process of abstracting as described in Chapter II of this study. A close examination will also reveal most of the elements indicated in the models above. There is, for instance, a source, an encoder, a signal, a decoder, a receiver, a destination, etc.

Johnson's model was developed in terms of individual-to-individual communication; but in the final analysis, all human communication -- including mass communication -- reduces to communication between individuals. For example, a newspaper article may be worked on by several people in the process of being published.

and it is written for a mass audience; yet, the article as finally written and published comes from some individual's conception of some happening which he wished to report, and the article must be read and evaluated by each individual reader. Therefore, Johnson's model remains valid for all types and levels of human communication.

Other Models

A number of other writers have also developed models to explain the process of communication. A brief summary of some of these models will be given below by listing the elements in each and pointing out any element that was emphasized in that particular model or not specifically pointed out in the other models.

Berlo — David Berlo indicated that a communication model should include (1) the communication source, (2) the encoder, (3) the message, (4) the channel, (5) the decoder, and (6) the communication receiver. Berlo was particularly influenced by research in the behavioral sciences, and he places considerable emphasis on the processes involved within the communicator and the communicatee at different stages of the communication process. He perceived the purpose of communication to be "to affect the responses of a receiver."

Lasswell — One of the most pervasive of existing models is that of Harold D. Lasswell: Who says what through what channels to

32Berlo, op. cit., p. 32.
33Ibid., p. 15.
This model indicates that communication is purposive, and Lasswell stressed the idea of analyzing the effect that a communication has on the receiver, on the source, and on the situation as a whole.

Thayer — Lee O. Thayer says that a communication event has four basic elements: an originator, a situation, a message, and a receiver. This model introduces the situation as one of the basic elements in communication. The "situation" refers to the complete context within which the communication event takes place. The environment, the knowledge of the sender and the receiver, their feelings and attitudes, and anything else that has any bearing or effect on the communication event are included in the "situation." Thayer points out that "the situation provides both the 'need' for the message, and a reference source for its interpretation."

A comparison of these models, and others, will indicate the great similarities among them. They differ partly because of the different points of view of the disciplines from which they emerged, partly in the addition or deletion of one or two elements, and partly in terminology. A point to keep in mind is that all of these models are attempting to describe essentially the same thing; but this thing (the process of communication) is so complex that no single model or

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36 Ibid.
description can ever completely describe it. These models act simply
to guide our thinking about communication and to give us a frame of
reference in analyzing the communication process.

V. A GENERALIZED COMMUNICATION MODEL

The communication model can be used to describe a relatively
uncomplicated communication situation. It is equally useful in
describing the communication behavior of a complex organization.
Berlo points out:

The communication model can be used to describe the per­
sonal behavior of any member of the . . . staff. At the
same time, it can be applied at a different level of
analysis, and used to describe the workings of the organi­
zation as a communication network. . . . The model is
equally applicable to both. It represents a point of
view, a way of looking at behavior.\textsuperscript{37}

In the pages below, a generalized model of the communication process
will be developed which can be used as a framework for discussing
the accounting process. This model is based on our discussion of
General Semantics, and the elements and phases of the communication
process discussed above.

Elements of the Model

This discussion of the communication process indicates several
elements which appear to be present in every communication event.
These elements include (1) a source, (2) an event, (3) an originator,
(4) an encoder, (5) a message, (6) a channel, (7) a receiver, (8) a
decoder, and (9) feedback. Let us look at a hypothetical communi­
cation event in order to see how these elements fit into the overall

\textsuperscript{37}Berlo, \textit{op. cit.}, p. 36.
communication process.

Joe Smith (a source) observes a drop of liquid fall on his coat (an event). Joe abstracts certain characteristics from this event -- it appears white, it cannot be brushed off his coat, it feels sticky, etc. -- and decides he will have to tell the dry cleaner about it (he becomes an originator). Abstracting to a still higher level, Joe decides that the drop of liquid can be called paint (he is now encoding -- symbolizing the event with words). Joe then selects additional words from his vocabulary and groups them into a meaningful sequence -- "I have a spot of white paint on my coat, Bill. Can you remove it?" (a message). Joe speaks (a channel) and the message is transmitted to Bill Jones (a receiver), who listens to the message and assigns meaning to the words (he is decoding; i.e., going back down the abstraction ladder, in his mind, from the words to the concept he already has of paint, removing it, etc.). Bill then makes some type of response (feedback), such as saying, "Yes, I can remove it."; or he might nod his head; or he might take the coat and apply spot remover to the spot of paint, removing it.

This hypothetical case of two people communicating illustrates the basic cycle of the communication process. This basic cycle will be found in all cases of human communication in which at least two people are involved.

The communication event can also be analyzed on a higher level -- such as at the organization or institutional level. At this higher level, we find that some of our elements must take a different meaning. We also find that the communication event on this higher
level may include several of the basic cycles as defined above. Another hypothetical communication event will illustrate these points.

In the Best Department Store (a source), Mr. Brown, the manager, overhears a clerk insult Mr. Smith, a customer (an event). Mr. Brown decides that the store owes Mr. Smith an apology (Mr. Brown becomes an originator), and he instructs the floor manager, Mr. Dail, to write a letter of apology to Mr. Smith. (A basic cycle). Mr. Dail gathers information about the incident from Mr. Brown and the clerk (which involves several basic cycles), and attempts to express the feelings of the store's management in words (Mr. Dail in an encoder; he may also have had assistance in this from Mr. Brown and others, and these would also be included as encoders). Mr. Dail then dictates his choice of words (the message) to his secretary, who types and mails a letter (the channel) to Mr. Smith (a receiver). Mr. Smith, who cannot read, asks his wife to read the letter for him (a decoder). Mr. Smith then responds to the letter. His response may take the form of a letter in reply or a telephone call to the store -- overt responses; or his response may be a tacit one -- such as continuing to shop at the Best Department Store. Any of these responses would transmit information back to the store, however. (Feedback).

In this second situation, it can be seen that the source is considered to be the department store; also that several people may be involved in encoding a message on the organization level. Thus, we still have our original nine elements, but the definitions
have changed for some of them. Rather than assigning fixed definitions to these elements, it is better to change our interpretations of them according to the level of our analysis. As Berlo points out, these elements "should not be viewed as separate things or entities or people. They are the names of behaviors which have to be performed for communication to occur." More than one person may be involved in the same behavior-form — that is, there may be multiple sources, encoders, and others; or one person may perform more than one set of behavior-forms — that is, the same person may be both a source and an originator, an encoder and a decoder, etc. This illustrates the earlier point that the elements of communication cannot be divided into independent or non-overlapping entities. We can, however, use the same elements to describe communication at different levels of analysis, if we remember the multi-ordinality of these elements.

The Model Summarized

From the above discussion, it can be concluded that a generalized model of the communication process can be used to describe communications at various levels of analysis. Such a model should include the following basic elements.

1. There is a source — which may be an individual, a group, or an organization.

2. There is an event — which is some first order happening that serves as a source of sensory stimulation. This event may occur within or without the individual.

38Ibid., p. 37.
3. There is an **originator** -- who perceives the event, abstracts certain characteristics from it, and decides that there is a need to communicate.

4. There is an **encoder** -- who may or may not be the same as the source and/or the originator. The encoder selects the words, or other symbols, which represent the event and arranges them to transmit information about the event. Several people may be involved in the encoding phase at the organization level.

5. There is a **message** -- which transmits information about the event. The message is the final product of the encoding phase.

6. There is a **channel** -- which is the medium through which the message is transmitted.

7. There is a **receiver** -- which may also be an individual, a group, or an organization. The message is addressed, or transmitted to, the receiver.

8. There is a **decoder** -- who may or may not be the same as the receiver. The decoder translates the words or symbols into concepts that have meaning and significance to himself.

9. There is **feedback** -- which is the response (either tacit or overt) that the receiver makes to the message and which is relayed back to the source. Feedback could be conceived of as some new event and as the start of a new communication event. It is more convenient, however, to conceive of feedback as the completion of a circular process.

These elements do not describe the communication process completely, but they do offer a frame of reference in which to analyze communications. These elements can also be used to describe the workings of other processes which are similar to the communication process. Thus, this generalized model of the communication process can be used in various levels and types of analysis.
VI. SUMMARY COMMENTS

In this chapter we have attempted to describe the workings of the communication process. We have examined the purpose of communication, the phases of the communication process, and several models of the communication process. Drawing from this discussion, and from the concepts of General Semantics, we have developed a generalized model of the communication process that will be used in Chapter V to explain and describe the accounting process.
CHAPTER IV

SOME GENERAL SEMANTIC ASPECTS OF ACCOUNTING

In the area of accounting communications, most of the research has been done at the level of report writing.\(^1\) As discussed in the two previous chapters, however, communication is an interrelated process with several elements and phases. This conception applies equally to all types of communication -- including accounting.

The notion of accounting as a communication process is discussed in this chapter and the succeeding one. In this chapter, selected General Semantic concepts are discussed as they are related to the accounting process.

I. THE PROCESS NATURE OF ACCOUNTING

This study has included two distinct conceptions of a "process." In the first instance, "process" has been used as a descriptive term to explain the nature of reality.\(^2\) The world and everything in it are constantly changing -- everything is different from one

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\(^1\)Paul Kircher, "Theory and Research in Management Accounting," The Accounting Review, XXXVI (January, 1961), 49.

\(^2\)Above, p. 20.
instant to the next. Thus, we live in a process world.

Another conception of a "process" is one in which the dynamic aspects of a series of events (or elements) and their interrelationships are recognized, and the entire system is referred to as a process -- for example, the communication process. In either conception, dynamic action -- rather than a static, fixed concept -- is indicated.

Accounting is vitally related to both of these conceptions of process. In Chapter V, accounting elements are discussed as a unified process in relation to a communication model, and in this chapter, accounting is related to the notion of a "process world" -- a notion that accountants have tended to bypass or disregard.

Accountants, and others, have a tendency to make identifications in evaluating accounting information; that is, they "fix" the facts and events being reported from year to year. For example, the "Land" account may be reported at the same monetary value for a number of years. As Paton and Dixon indicate:

Transactions affecting the land account are relatively infrequent and often there are not acquisitions or dispositions of such property over a considerable period of years. . . . Only on special occasions, however, is formal recognition of increase or decrease of land value likely to be considered.  

Under such circumstances, the accountant is likely to evaluate that account as referring to the same land in each period, thus identifying those "facts." In actuality, however, that "land" has changed

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due to the process nature of reality, even though the monetary value of that land may not have changed. As Korzybski points out, "Iron or anything else means only a persistence for a limited time of certain gross characteristics representing a process." Therefore, this land is in a state of process and is not the same from year to year.

Other types of assets are equally affected by the process nature of reality. For example, an intangible asset such as goodwill may be in a constant state of flux. The value of goodwill may change from day to day -- or even from hour to hour -- as customers, employees, and others are pleased by one incident and are displeased by another incident.

Accountants may not have sufficient information (or authority) to record many of the changes that a firm's assets and equities undergo, particularly in situations such as those indicated above, but they should be aware of the fact that those changes are occurring. The doctrine of objectivity -- which requires verifiable, objective evidence to support recorded transactions -- prevents many observable changes from being recorded, but it does not prevent the accountant from reporting the change. In fact, the related doctrine of full disclosure would appear to require the accountant to report any change which became obvious, even though the change

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4Korzybski, Science and Sanity, p. 162.

5W. A. Paton and A. C. Littleton, An Introduction to Corporate Accounting Standards (Columbus, Ohio: American Accounting Association, 1940), p. 18.
was not "objective" enough to be recorded as a transaction.6

Even though changes may not become obvious enough to report, the accountant should still be aware that changes are occurring beyond the ken of his senses. This awareness of change will cause him to look for change; it will cause him to expect change -- in all things; it will cause him to evaluate better because he will look for differences in each thing or event; and it will cause him to report events as dynamic processes rather than as fixed entities.

Of course, the user of financial statements should be equally aware of the process nature of accounting events. The user must evaluate these statements in order to obtain meaning and significance from them; but unless he tempers his evaluation with an awareness of change, he will get yesterday's meaning and apply it to today's situation.7 For example, an income statement may indicate that net profit for last year resulted from a reduction in expenses. Now if sales drop this year, a manager might still expect a profit if he holds his expenses at the same level -- but only if he is applying the meaning he obtained from last year's income statement to this year's situation. If the manager is fully aware of change in accounting events and situations, he would never make such an illogical evaluation of today's situation. This was an exaggerated


example, but it illustrates the point that the process nature of reality applies to accounting events, as well as to the rest of reality.

This brief discussion of the role of process in accounting indicates the futility of expecting absolute accuracy in the "facts" of an accounting report. Even under the assumption of complete accuracy at the moment of the preparation of a report, there would be some "change" before the report could be evaluated and a conclusion reached. (Of course, this does not mean that an accounting report is useless; only that it must be evaluated with care).

II. ACCOUNTING AS AN ABSTRACTING PROCESS

In Chapter II, we discussed in some detail the process of abstracting. In brief summary, the abstracting process involves selecting certain characteristics, and omitting others, from a multitude of possible characteristics of some occurrence. As noted in the discussion of General Semantics, there are several levels of abstraction with each level considered a higher order abstraction than the previous level (meaning that more and more characteristics are being omitted). It is submitted that this process of abstracting is particularly applicable to the accounting process and can lead to a better understanding of the thought processes involved in preparing accounting reports.
The Fact-event Level

As pointed out above, accounting is concerned with fact-events that are beyond our ability to observe. These fact-events can properly be considered as occurring at the event level described in Chapter II. At this non-verbal level of abstraction, things are constantly happening and relationships are constantly changing. In other words, at this level, our environment and the nature of reality are influencing, preventing, and causing fact-events to occur. But many of these fact-events will never come to our attention because of the inability of our science and our senses to discover what has happened.

As applied to accounting, there are changes occurring in the assets of the entity at this un-sensible level. There are also changes occurring in the environment surrounding the entity. As Kircher points out, "Accounting is an activity carried on in an economic, technological, and political environment," and each of these overlapping environments is influencing the knowledge, the feelings, and the thoughts of people who may ultimately affect the entity and the accounting therefor. In other words, the entity is constantly buffeted by events that may eventually affect it either directly or indirectly. However, at this level, the accountant does not and cannot perceive what is going on; his only

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8 Above, p. 24.
9 Above, pp. 2-3.
10 Kircher, op. cit., p. 46.
knowledge is that "something" is happening.

The Object Level

Those fact-events may eventually produce characteristics that the accountant can perceive. When he perceives these characteristics, the accountant becomes aware that a particular something has happened; that is, he is aware of the "object," but he has not yet given it a label or classification.

This objective level is where the traditional accounting transactions take place. Transactions have unsensible characteristics, but accountants have generally ignored this aspect of transactions. In essence, it is some economic event that occurs, which is perceived by accountants as a transaction. The accountant "knows" what he has perceived -- that is, he has a picture in his mind -- but the object is still on the nonverbal nondescriptive level of abstraction. An example of this object level of abstraction is where an asset has undergone some change -- perhaps by the combination of other assets with it, perhaps by deterioration, or perhaps by accretion -- but whatever the cause, there is a sensible change in the asset. Another example is a situation where some person -- or persons -- have become so influenced by the environment that they take some action which affects the entity and which can be perceived. Such action might consist of a purchase by the entity, a sale to a customer, or some other type of transaction; the action might be a mass reaction, such as a declining market price for the company's products; or it might be some other action that is perceivable.
Note, however, that not all of the perceivable objects will be considered transactions; it is only the transactions that will be recorded by the accountant, or to put it in better terms, it is only abstractions from transactions that will be recorded by the accountant. This is the object level of abstraction, and the reader will recall that there are fewer characteristics at this level than at the fact-event level.

It should also be pointed out that the pictures formed in the accountant's mind at this level are influenced by his knowledge, beliefs, and personal feelings. In other words, there is a semantic reaction to this object by the accountant. Obviously, whatever is ultimately produced in the accountant's report will be influenced by the "pictures" he perceives and his semantic reaction to them.

Higher Order Abstractions

The fact-event and the object levels are considered first order abstractions. Moving to the next and succeeding levels requires symbolization of those first order abstractions with words or other symbols, thus these higher order abstractions are on the verbal level. There are two approaches to the higher order abstractions: One approach indicates the level of the statement being used; the other approach classifies the things being observed. It is submitted

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11 Above, p. 23.

12 Above, p. 25.
that both approaches are pertinent to accounting data.

At the first verbal level, the accountant abstracts those characteristics which best describe the object he has perceived. The accountant approaches a factual statement at this level, that is, a statement "made after observation . . . and verifiable by accepted standards." Such a statement approaches but does not reach, absolute certainty because certain characteristics have been omitted at each level. This point has been recognized by accountants — at least, it has been recognized on an intellectual level — although in practice, accounting statements have been accorded a degree of factual certainty that they do not deserve. For example, Paton and Littleton say, "Accounting . . . can never become completely scientific, because its factual materials can never be determined with complete and conclusive objectivity." And another writer points out:

One of the common fallacies in business and elsewhere is the notion of "single-valued" truth. The idea that there is some one figure to be found, some single answer to be established, overlooks that facts are not real in themselves; facts are interpretations of data with respect to experience.

This same writer also comments, "The very objectivity of quantitative data gives them an apparent validity, and it is easy to

\[ ^{13} \text{Weinberg, op. cit., p. 32.} \]
\[ ^{14} \text{Paton and Littleton, op. cit., p. 19.} \]
\[ ^{15} \text{William J. Vatter, "Accounting and Statistics," The Accounting Review, XXXVI (October, 1961), 595.} \]
assume they have an inherent reliability that they may not in fact possess."\textsuperscript{16} In point of fact, accounting reports will not even be on descriptive level of abstraction in most situations. That is, they will not describe a single event, but will report a number of similar events.

Moving upward from the descriptive level of abstraction are various levels of inferential statements. Inferential statements abstract even fewer characteristics from the event and may combine these characteristics with previously learned knowledge to reach some conclusion.\textsuperscript{17} Actually, there can be any number of levels of inference between the descriptive level and the judgment or conclusion level, with each level abstracting fewer characteristics and combining those characteristics with different information at each level. Thus, when a judgment or conclusion is finally reached, there may be varying degrees of fact remaining.\textsuperscript{18}

Accounting reports would appear to fit in somewhere within this inferential range of statements. That is, accountants prepare reports from information provided them from various sources,\textsuperscript{19} so they generally have no first-hand experience with the events being reported. Accounting information is also prepared by combining facts of various types and reporting the combined facts as a single

\textsuperscript{16} Ibid., p. 589.
\textsuperscript{17} Korzybski, \textit{Science and Sanity}, p. 444.
\textsuperscript{18} Weinberg, \textit{op. cit.}, p. 32.
\textsuperscript{19} Below, p. 120.
fact. For example, depreciation, as reported, contains elements of (1) wear and tear, (2) deterioration and decay, (3) damage or destruction, (4) inadequacy, and (5) obsolescence. Thus, the "fact" of depreciation is in reality the result of a number of events at the fact-event level. This is not a criticism of accounting reports, because this method is the only way of communicating information of any type. Accountants (and others) should be fully conscious, however, that they are dealing with inferential statements.

The second use of higher order abstractions is in the realm of naming and classifying things. For example, something happens and it is observed at the objective level. The observer gives the "picture" in his head a name; he is thus classifying that object according to his previous experience.

An accountant does exactly the same thing in the accounting process. For example, let us look at an ordinary credit sale from the point of view of the abstracting process.

An event occurs and certain characteristics of that event are observed at the object level. The accountant, looking for some type of transaction, examines the "picture" in his mind and decides it has the characteristics of a sale. Thus, "sale" becomes the name given to the event. From this sale, the accountant abstracts

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21 Above, p. 27.
certain characteristics to enter into the accounting records. First, under accounting conventions, there has been revenue realized, so the accountant enters into a journal a "sale" and the monetary amount of the sale. An "account receivable" has also been created, so this characteristic is recorded, along with the monetary value. These are the characteristics that would be recorded generally, but these are not the only characteristics of that event. For example, that event reduced the merchandise inventory of the firm; goodwill may or may not have been created by that event; and the firm may have profited or had a loss on that sale. All of these characteristics, and others, could be abstracted and reported, but accountants have chosen not to abstract such characteristics from each event. Instead they abstract only a select few (not one characteristic, as one writer recently wrote22) characteristics, and later on they infer some of the other characteristics (such as profit or loss, reduction in inventory, etc.) from these recorded characteristics.

When the accountant labelled the above transaction, he classified it into some category (or categories). By abstracting still fewer characteristics, the accountant can classify the event into still different categories. For example, using the "account receivable" classification, we can illustrate this notion.

The preceding example of one account receivable is repeated a great number of times during an accounting period. Each transaction

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occurs and selected characteristics from it are labelled "account receivable." Thus, the same name is given a number of different events.\textsuperscript{23} It is an important point to remember in evaluating accounting information that the information is about different events even if they have the same label.

After the first verbal level (naming), by abstracting fewer characteristics, the second level of higher order abstractions is reached -- the group classification "Accounts Receivable." This classification has the same name, but it is on a different level of abstraction. Accounts Receivable\textsubscript{account} is not identical with account receivable\textsubscript{1}, account receivable\textsubscript{2}, ... account receivable\textsubscript{n}, but it is a classification that includes characteristics from those events.

Abstracting further, and combining with other accounts, there is the classification of "Current Assets." Thus, still fewer of the characteristics of the event are included in this classification -- only those that are similar to other events which have occurred and produced characteristics that are included in the category of Current Assets.

Omitting still more characteristics and the "account receivable" is included in "Total Assets." At this level of abstracting, most of the characteristics of that individual "account receivable" have disappeared, and accountants generally stop abstracting. Even so, it would be possible to continue abstracting to the levels of

\textsuperscript{23} Above, p. 28.
"wealth," "national wealth," and others, if necessary or desirable for some purpose.

Summarizing briefly, this ladder of abstraction includes the following levels: (1) the event, (2) the object level -- transaction, (3) account receivable, (4) Accounts Receivable, (5) Current Assets, (6) Total Assets, (7) wealth, (8) national wealth, (9) etc. -- to indicate that the levels can continue if needed.

This ladder of abstraction is not the only one that could be constructed from that one basic event. At each level, different characteristics could have been abstracted for a different classification at the next level. For example, from the first verbal level (the account receivable), abstracting certain characteristics -- such as its not being a tangible, physical thing and its conferring a right to payment to the firm -- could have caused the accountant to classify those characteristics as an "Intangible Asset." Accountants do not classify account receivables as intangible assets, but this illustrates the point that no matter which classification is used, there are other characteristics that indicate another classification might be used.

Other transactions can be abstracted in the same manner indicated for an account receivable. For example, a typewriter owned by a firm can be classified as follows (using the abstracting process): typewriter, office equipment, Fixed Asset, Total Asset,

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etc. On the other hand, the following ladder of abstraction might be more appropriate if the firm sells typewriters: typewriter, merchandise inventory, Current Assets, Total Assets, etc.

Notice that we have not offered any new classification in this discussion. Accountants have been using these classifications for decades. We submit, however, that this is a new method of arriving at the reported classifications and that this method will improve the accountant's thinking and communicating ability. For example, this method causes the accountant to think in terms of a process reality; it prevents him from making harmful identifications — that is, when he is discussing office equipment, his mind would go down the ladder of abstraction and he would think typewriter\(_1\), typewriter\(_2\), desk\(_1\), and desk\(_2\) even though he might not specify them in the discussion. This would improve his communicating ability because the accountant would be aware of the difference between this year's total office equipment of $2500, for example, and last year's total of $2500, and he could touch on this difference if it were important. For example, $2500 dollars of office equipment might be normal for a firm of a given size, but if that total includes a surplus of filing cabinets and a shortage of typewriters, that might be significant enough to report. At least, by following the abstracting process, the accountant would be aware of the difference and could make an informed decision about it.

Summarizing briefly, we have submitted that the abstracting process is particularly applicable to accounting. Using an understanding of the abstracting process, accountants will have a clearer
understanding of how accounting classifications are derived. Better communications will result also, because no one will expect "facts" in an accounting report and so will evaluate the information in a report more carefully. Knowing that accounting information is on an inferential level, accountants and analysts will make the necessary adjustments to properly interpret the data provided in the reports.

III. EXTENSIONAL DEVICES IN ACCOUNTING

The discussion above indicates the process by which accounting information is derived. This information provides a guide to the process reality that makes up an enterprise's existence — it is, in effect, a map of the financial structure of the firm. From our previous discussion, it is obvious that this map cannot include everything; therefore, providing a map is not the end of the communication process. This map must be evaluated and interpreted. As Professors Mason and Davidson point out, accounting "should never be considered an end in itself. It should, instead, be viewed . . . as a means of providing information." And two other writers commented that what is transmitted by an accountant "is a codified message, awaiting for accurate interpretation by the destination." 

While this chapter is not on the interpretation of accounting information, there are some General Semantic devices that can help

25Mason and Davidson, op. cit., p. 2.
26Bedford and Baladouni, op. cit., p. 656.
evaluate accounting information from a more realistic standpoint. That is, these devices are designed to orient the user to a process reality; they help make the structure of accounting language and reports fit the process structure of an entity's reality.

**Dating**

As indicated in the discussion above, accounting events occur in a process reality; i.e., an environment that is constantly changing. But accounting reports (in common with all other reports) cannot indicate this changing process. At best, "a financial statement turns out to be an approximate picture... a picture of a theoretically frozen moment in the life of a moving business."\(^{27}\)

And this "still picture" contains information that "is all over by the time it is reported... We can never have an up-to-date picture of any phase of a business because changes are taking place while we are investigating."\(^{28}\)

Nothing can change the report itself from its fixed, static state, but the evaluation of the report can be done from a dynamic point of view.

The extensional device of dating can help to make the accounting information conform to the process reality it represents. Dating reminds that reported events are not the same as current events, and that current events are not the same as future events. For example, dating of assets would remind one that reported assets in

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\(^{27}\) Sommers, op. cit., p. 22.

\(^{28}\) Ibid., p. 23.
different periods are different. If a firm reports $50,000 of accounts receivable in two consecutive periods, it does not mean that they are the same accounts. One period might have accounts that are 99% collectible, while the following period might have accounts that are only 75% collectible. A recession, a new group of credit customers, a new credit manager, or a number of other factors might cause such a situation; but the point here is that by dating those accounts receivable, an analyst would not expect the assets to be identical. The analyst would not only expect them to be different, he would look for that difference.

Dating accounting information would also remind that the causes for a particular situation are subject to change. For example, a firm may have had accumulating inventories in two different periods. The cause in one period could be that sales were reduced below expectations, and in the other period, the cause might be that production was increased in order to accumulate inventories. Here again, dating would warn the analyst to look for different causes, rather than expect the same cause and effect in different situations.

One of accounting's most irksome problems is the changing value of the dollar. Various price indexes have been developed, but as Paton and Dixon point out:

Any index that may be prepared . . . is subject to objection. The movement of prices -- and the resulting change in the buying power of the dollar -- does not have precisely the same significance to any two individuals or business entities.29

Thus, there appears to be no completely satisfactory solution to the problem. However, the device of dating does offer an approach to the problem.

Since each individual must gain his own significance from the changing price level, if he knows the date of the event or thing he is evaluating, he can make his own adjustments to the data in terms of the monetary value as of that date. For example, a balance sheet may show land valued at $3000 and a building valued at $8000. These values are almost meaningless unless the reader knows when they were assigned to those assets. But the simple addition of a date to each amount will give the reader much more information, and he can then assign meaning and significance to those assets. Of course, it would be an impossible and unwieldy task to assign a date to every asset and every event included in an accounting report. But dating just the major items would greatly increase the significance of the information. And in addition, the reader of the report should be mentally dating everything he reads, at least approximately, in order to keep the process point of view in mind. It is submitted that this device of dating accounting information will help the accountant and the analyst make a dynamic evaluation of accounting data.

Indexing

Accounting is concerned with a vast number of unique facts, events, and things. But accounting does not -- and cannot convey
the individuality of all these things. As Professor Littleton points out, "Accounting records, classifies, compresses, simplifies, a mass of detail into a few understandable, related totals, and sub-totals. Accounting then is a mechanism that makes an unintelligible mass of detail intelligible." In terms of the abstracting process, characteristics from these things are omitted as they are classified and reclassified at higher and higher levels.

But these things retain their individual characteristics, and often it is "the characteristics left out that really attracts our interest and attention." For example, a report may indicate machinery at some stated value, but an analyst -- and particularly management -- would be interested in the individual machines; he would want to know how modern, how efficient, and how useful they are to the firm. In other words, the total amount is important and conveys some information, but it is the individual machines that are truly significant. It is in the individual machines that the extensional meaning of the report is found, and this is true of all the items in a report.

The extensional device of indexing helps the accountant and the analyst keep the importance of the individual item in mind. The class word "machinery" points to the similarity of various items included in that category, but the addition of an index, such as "machinery," or "machinery punch," points to the differences in those

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31 Above, p. 40.
32 Above, p. 50.
individual machines. This device may also be applied mentally to indicate the important uniqueness of each item.

Hyphen

General Semanticsists point out that nothing in nature stands alone; everything is related. This concept also applies in accounting. In the business situation-as-a-whole, which accounting attempts to portray, all of the events included in accounting reports are related; they all contribute toward the success or failure of a business. For example, profit is not determined by revenue or cost; it is determined by the two in combination. The extensional device of a hyphen is used to show the relatedness of things that are verbally separated, but which cannot actually be separated. Thus, we should say -- or at least think -- that profit is determined by revenue-cost. (The "-" is a hyphen and not a minus sign).

Other elements of a business should also be thought of in terms of relatedness. This way of thinking prevents elementalistic thinking, which is defined as extricating one element of a broad situation-as-a-whole and isolating that element from the rest of the situation. The hyphen serves as a mental indicator or warning to connect separate elements and think of them in terms of the situation-as-a-whole.

33Above, p. 41.
Quotes

General Semanticists recommend using the extensional device of quotes on the silent level (1) to keep us from forgetting that every class word is an abstraction, (2) to help us remember that communication is always approximate, and (3) whenever we use a word that is likely to have a different meaning to the receiver (in this case, we should also physically use quotes).\textsuperscript{34} Accounting, of course, is filled with class words. Every time such a word is used or read, quotes should be mentally placed around it to indicate characteristics have been omitted from the fact-event, and that we need to go back down the ladder of abstraction in order to get the most meaning from the word.

Accountants also use words with special meanings. As Clapp points out, "The accountant's technical vocabulary comprises also a group of words . . . which unfortunately may cause layman readers trouble. These are words which are used today by everyone, but to which the . . . accounting profession attaches special meaning."\textsuperscript{35} The same writer goes on to say, "It might be more useful to remember that the layman addressed may not know the special signification which the familiar term is carrying."\textsuperscript{36} Thus, accounting has a real need for this extensional device of quotes.

\textsuperscript{34}Above, p. 42.


\textsuperscript{36}Ibid.
It is not necessary to fill accounting reports with quotes, but what does appear essential is to train accountants and users of accounting information to approach accounting words with mental quotes. This device will act as a warning that accounting terms are "loaded" in the sense that they may have a meaning different from that generally given the term.

This device can also act as a signal to accountants that what they need to do "is to carry their word-consciousness a step further and pay attention in their choice of words, to the mental habits of layman readers."37 Then, when a word is known to be misleading, and there is no suitable substitute, the accountant should enclose that word in quotes. This would warn the reader to look for a special meaning in that word.

On the other hand, if users of accounting information consistently employed mental quotes in evaluating accounting data, they would be aware of the dangers in class words, and these words would not need the physical quotes as a warning. To sum it up briefly, quotes can be a useful warning device in accounting at all levels to watch for the inadequacies of the accounting language.

Etc.

The addition of etc. to a word or statement indicates that that word or statement does not include everything that can be said about the subject. This device prevents dogmatic statements, because

37Ibid., p. 27.
the "etc." is a constant reminder that language is an abstracting process and no statement can ever be final. This is especially true in accounting.

Professor Littleton says that a "great deal of essential data to guide decisions is beyond the ability of accounting to furnish." 38

Another writer comments:

Accounting reports are limited to information that can be expressed in monetary terms. Nothing in the accounts explicitly describes personalities, the impact of outside forces, or other nondollar information that is vital to the complete understanding of a business. 39

The same writer also points out that "some accounting figures are influenced by future events which cannot conceivably be foreseen; these figures are necessarily estimates." 40 Therefore, these accounting reports should be analyzed with the "etc." in mind to remind the analyst of the nonallness of the statement.

The addition of "etc." to accounting statements would also sound a warning against assigning any single cause as the cause of some condition indicated in the report. As Keyes points out, "No matter what we say is 'the' reason for something, there are always many underlying reasons that have been overlooked." 41


40 Ibid.

41 Keyes, op. cit., p. 3.
Use of these five devices would tend to introduce process, uniqueness, and relatedness into accounting. These devices are designed to point beyond the data contained in accounting reports to the underlying events which produced the data. Continued use of these devices would help the accountant and the evaluator of accounting data to stop thinking in static, elementalistic terms, and to start thinking in terms of a dynamic, process-oriented events. In other words, these devices will help the user to become a non-Aristotelian oriented evaluator.

IV. SUMMARY COMMENTS

This chapter is concerned with certain aspects of General Semantics as they apply to accounting. The process of abstracting accounting data from a process reality was examined. Accounting was also related to a process reality to indicate the basic nature of its underlying data. Several extensional devices were discussed as they could be used to relate the structure of accounting language and reports to the process events they represent.

It is submitted that this process-oriented view of accounting is the proper one in the light of our present-day scientific knowledge about the nature of reality. It is also submitted that the General Semantics methodology is a proper one for evaluating accounting information in a process-oriented accounting process.
CHAPTER V

A COMMUNICATION MODEL OF ACCOUNTING

In Chapter III various elements and phases of communication are examined, and a generalized model of the communication process is developed. It is submitted that the process of accounting can be related to, and explained by, this generalized model.

This chapter is concerned with an analysis of the various elements of the communication model as they pertain to the accounting process. First, however, it will be necessary to extend the definition of the accounting process as it is generally conceived and understood. It is submitted that the following explanation of the accounting process is more indicative of the nature of a process and offers a more unified conception of what actually occurs in accounting than the traditionally conceived definition.

I. THE ACCOUNTING PROCESS

The accounting process as traditionally conceived refers to the steps and procedures involved in recording, classifying, and summa-

rizing accounting data. For example, Karrenbrock and Simons say:

The accounting process . . . is composed of a number of steps in well defined sequence. . . . these steps consist of:

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(1) The entry of the transactions in chronological order in the books of original entry.
(2) The transfer of transactions as classified and summarized in the journals to the appropriate accounts in the ledgers.
(3) The preparation of a trial balance of the accounts in the general ledger and the reconciliation of supporting data in the subsidiary ledgers with respective controlling accounts.
(4) The compilation of the data required in bringing the accounts up to date.
(5) Preparation of the work sheet.
(6) Preparation of the financial statements and supporting schedules.
(7) The adjustment of the accounts and the closing of all nominal account balances.
(8) The preparation of a post-closing trial balance.
(9) The reversal of entries that were made to establish accrued and prepaid income and expense balances.\footnote{Karrenbrock and Simons, \textit{op. cit.}, p. 117.}

Other writers generally agree with this position, although they may refer to these steps as the "accounting cycle."\footnote{Cf. H. A. Finney and Herbert E. Miller, \textit{Principles of Accounting—Introductory} (Fifth Edition; Englewood Cliffs, N. J.; Prentice-Hall, Inc., 1957), p. 50; and Anthony, \textit{op. cit.}, p. 105.} Thus, the accounting process refers only to the rather formalized procedures involved in preparing a select few general financial statements.

Other aspects involved in the general field of accounting are not considered to be elements of the accounting process. These aspects include the business and cultural environment of the economic entity; the preparation of special financial statements and management reports; the analysis and interpretation of accounting information; and the ensuing feedback from the recipients of the accounting information to the business concern. We submit that such a limited and elementalistic...
conception of the accounting process leads to a misunderstanding of the nature and purpose of accounting and to misevaluation of accounting data.

Based on this elementalistic approach to accounting, the accounting profession has compartmentalized much of the field and study of accounting. For example, accounting education stresses the construction of financial statements and de-emphasizes other segments of accounting. As one writer says in relation to the interpretive phase of accounting:

There are books available on statement analysis, but for the most part the businessman and the business student are still invited to study bookkeeping and accounting to appreciate how to use statements. As a result, many learn much about construction, but only incidentally about interpretation.3

This does not mean that interpretation of accounting information is not taught; only that it does not receive the attention it deserves.4

Accounting textbooks and courses of study tend to separate the field of accounting into distinct areas or segments, and so, perpetuate the elementalistic approach. For example, elementary textbooks may take a "managerial" approach, a "principles" approach, or a "financial" approach as if they were concerned with different processes. There are also courses of study in "cost accounting," "governmental accounting,"

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4 The recent emphasis on the managerial approach to accounting has tended to correct this lack of attention. See Virgil Boyd and Dale Taylor, "The Magic Words--'Managerial Accounting,'" The Accounting Review, XXVI (January, 1951), 109.
hospital accounting," "payroll accounting," "administrative accounting," "accounting systems," "controllership," "budgeting and control," "statement analysis," "auditing," and others.\(^5\) While there is considerable merit in teaching these courses separately in order to emphasize the distinct features of each area or phase, each of these courses is concerned with a part of single overall process. Both accountants and users of accounting information should be aware of the overall process of accounting and where each of these courses fit into that process.

What is needed is a formulation that provides for each of the elements of accounting in a single, unified concept that does not allow one element to overshadow any of the others — no matter how important that one element is. Just as in the communication process, no single element of accounting can properly be considered to the exclusion of any — or all — of the other elements.\(^6\) We submit that the elements discussed in the model below — rather than the traditional accounting process, which emphasized the construction of accounting statements — provide a more meaningful and unified conception of the accounting process.

II. ELEMENTS OF THE ACCOUNTING PROCESS

The generalized model of the communication process, which was developed in Chapter III, contained the following elements: (1) a

\(^5\)Bulletin of the Mississippi State University (State College, Miss.: Mississippi State University, 1962), pp. 124-26.

\(^6\)Above, p. 67.
source, (2) an event, (3) an originator, (4) an encoder, (5) a message, (6) a channel, (7) a receiver, (8) a decoder, and (9) feedback. Each of these elements are discussed below as they apply to the accounting process.

Source

Accounting is concerned with the economic activities of a specific unit or organization. As Professors Noble and Miswonger point out:

Accounting always applies to an economic organization or unit of society. Economic units include profit-making businesses; governmental units, such as states, cities, and school districts; consumers, such as families and individuals; and other social organizations, such as churches, hospitals, and clubs.7

Accountants refer to this unit or organization as an entity.8 Also, another author tells us that "we must look at the transactions which take place under one roof, whatever that roof might be."9 With this restriction, it is clear that the entity must be the source of accounting information. In the previous chapter, the source in the communication process is interpreted as being applicable to an individual, a group, or an organization; thus, it is apparent that, as applied to accounting, source refers to the accounting entity.

7Noble and Miswonger, op. cit., p. 1.
8Moonitz, op. cit., p. 22.
The boundaries of an accounting entity are variable and must be specified in order to identify the source of an accounting message. For example, one writer says, "The focus of the accountant's activities is the enterprise for which he is accounting. . . . The concept of the entity is equally applicable to the incorporated and unincorporated business enterprises." On the other hand, cost accounting reports deal with "a particular process, job, service unit, or department of the company." Thus, there is an apparent conflict here, if we accept the definition of an entity as being a "business enterprise." Obviously, the problem here is a matter of the point of view of the writers: The first writer is limiting his definition to "financial" accounting, while the second writer merely tells the areas cost accounting covers, without specifying that these areas are entities. This illustrates the earlier point that accountants tend to compartmentalize accounting -- each area is kept separate, even though, operationally, the areas may have many common characteristics. In the case at hand, there is a source of accounting information in each instance. Since the definition of an entity already permits flexible boundaries between an incorporated and an unincorporated business enterprise, why not allow the boundaries to expand or contract as needed to encompass the source of an accounting report. In practice, accountants have done this; but

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in theory and definition, very few accountants have acknowledged this concept of an entity. An exception is Professor Sewell Bray, who says:

You can make the entity what you will. It may be a firm, a person, or a company; it may be legal or domestic, a group or an isolationist; it may ascend or descend the hierarchy of economies to be limited at will by political, geographical, industrial, or natural boundaries.\(^\text{12}\)

Thus, an entity with flexible limits may be considered acceptable, but how may the limits of a specific entity be defined?

This writer submits that the criteria for defining the limits of an accounting entity is found in the scope of the report. If a report is on the activities of a single department, then that department is the entity; if the report is on the activities of a particular department plus selected activities outside that department, then that is the entity; or if the report is on the activities of a multi-company corporation, then all of the companies involved in that report make up the entity. This concept of an entity could conceivably include units that are not directly related, if the scope of the report is their combined activities. An example of this situation might be the combined activities of an industry, or the combined activities of a number of firms in a given area, such as a shopping center. Thus, a report might be prepared for almost any entity under this operational definition of an entity.

Note, however, that this operational definition does not allow the accountant arbitrariness. The accountant must restrict an entity

\(^{12}\)Bray, Four Essays, p. 5.
to what is needed for a specific report. In other words, the accountant cannot (or should not) decide on "his" definition of an entity and use that "entity" in all of his reports.

Does this approach place too much reliance on the accountant? Probably not. In the first place, the accountant does not generally initiate accounting reports. Ordinarily, the accountant prepares reports after they have been requested (either directly; or indirectly through a standing order or custom — such as annual reports), and the request will define the entity, either expressly or by implication. For example, a request for a cost breakdown on a product would specify the limits of that product line, or give some other point of reference in order to define the entity. In the second place, the accountant would be in the same position as any other report writer if he did initiate a report. That is, the report would have to specify exactly what was being reported and why, and this would specify the limits of the entity. As Moonitz says, "Any report must identify clearly the particular unit or entity involved."\(^{13}\)

Based on this concept of an accounting entity, and the previous discussion of the occurrence of events,\(^ {14}\) it appears reasonable to say that the source of accounting communications is the entity. In other words, it is within the entity that the unspeakable events occur which culminate in an accounting communication.

\(^{13}\)Moonitz, op. cit., p. 26.

\(^{14}\)Above, p. 24, and p. 87.
Event
The accounting entity is involved in a world of economic events. As two writers recently pointed out, "The world of a firm's economic events is the totality of that firm's economic reality." Accounting statements and reports are attempts to symbolize that reality at some level of abstraction.

As discussed in the previous chapter, these economic events occur at the unspeakable, unsensible level. Accountants perceive characteristics from these events at the objective level and refer to them as transactions.

A transaction has been defined as "an action that results in a change in the assets, the liabilities, or the proprietorship of a business." Another writer agrees when he says, "An accounting transaction arises as a result of any act that affects the amount, nature, or composition of a company's assets or equities." These broad definitions indicate that any economic event which affects a company's assets or equities might be considered a transaction. Other accountants, however, restrict the definition of a transaction to certain types of economic events. For example, Noble and Niswonger say that "a transaction is the occurrence of an event or of a condition

15 Bedford and Baladouni, op. cit., p. 654.
16 Above, p. 37.
17 Karrenbrock and Simons, op. cit., p. 63.
that must be recorded."19 Professor Littleton says that "transactions are economic facts . . . expressed quantitatively in prices."20 This point of view is accepted by Professors Paton and Dixon: "Accounting deals almost exclusively with data that can be measured and reported in monetary terms."21 Thus accounting is concerned only with those economic events that are expressible in monetary terms, and which affect the assets or equities of the entity.

Accounting transactions provide the basic data for all types of accounting reports. For example, a management report might be concerned only with events occurring within the entity, while the general financial statements are concerned with events occurring within the entity and events occurring between that entity and others. The transaction is the basic event for both types of reports. As Professor Bray points out, accounting transactions are "by nature either real or financial, actual between two entities or imputed in the accounts of one entity."22 Therefore, it can be concluded that the basic event of accounting communications is an economic event which affects the assets or equities of an entity. Such basic events are referred to as transactions.

19Noble and Niswonger, op. cit., p. 3.
20Littleton, Structure of Accounting Theory, p. 10.
21Paton and Dixon, op. cit., p. 4.
22Bray, Four Essays, p. 3.
In the communication process, communications are originated by someone who perceives an event and decides that information from that event should be conveyed to someone else. In accounting, the same function must be performed before reports are formulated. There is no single individual, or position, that performs that function in accounting, however. For example, a department head might want a cost analysis of his department activities and request such a report; or the treasurer of a company might request an income statement for a particular period; or the controller might see the need for a special report for all departments. Each of these people would be considered the originator of that report.

It can be seen from the above that there can be no definitive answer as to the originator in the accounting process. In practice, the originator could be anyone with the authority to request an accounting report. Of course, in a given instance, the originator of an accounting message could be determined; but that individual would be the originator only in that situation, and not in others. Therefore, for purposes of this study, the originator in the accounting process is anyone who "sees" a need for an accounting report and initiates the action which results in the formulation of such a report.

23 Above, p. 80.
Whenever an economic event has occurred and information from that event is to be communicated, an accounting message must be encoded. In the accounting process, the role of the encoder is performed by the accountant. As an encoder, the accountant must abstract certain characteristics from the economic event and select the symbols which will represent that event. These symbols are a code, or language, that the accountant uses to communicate accounting information.

Accountants have developed a special terminology to use in accounting messages, and this terminology — or technical language — is designed to reflect the financial reality of a business entity. Like all languages, however, accounting has certain limitations. As Korzybski tells us, "If we reflect upon our languages, we find that at best they must be considered only as maps." And a map is nothing more than a guide in exploring the territory it represents.

Some of the limitations of the accounting language are that (1) it contains many technical terms; and (2) it shares a number of terms with our normal, everyday language, but accounting assigns

\[\text{Accountant is used in this section as a high order abstraction, referring to a class of accountants rather than to an individual.}\]

\[\text{Above, p. 33.}\]

\[\text{Alfred Korzybski, Science and Sanity, p. 58.}\]
these terms special meanings. In encoding an accounting message, the accountant should take these points into consideration. As Professor Kemp says, "The goal of financial statements is to reflect as nearly accurately as possible the financial facts of business operation." But, as Clapp points out, when using accounting terminology, "it might be useful to remember that the layman addressed may not know the special significance which the familiar term is carrying."

The accountant, following the abstracting process, labels the economic events with terms from his technical language. These terms are then further abstracted, reclassified, or summarized into categories suitable for inclusion in a message. The accountant then arranges these categories so that they will convey the most possible information, and he has completed the encoding phase.

In its simplest form, the above remarks indicate what happens in the encoding phase. However, there are a number of complicating factors that should be pointed out. First, there may be many persons involved in the encoding phase. For example, in a fairly large firm, there are several bookkeepers and accountants. Each of these


28Kemp, op. cit., p. 129.

29Clapp, op. cit., p. 29.

30Above, p. 86.
people is assigned certain duties and responsibilities. They each abstract data, encode it, and pass it on to the next level. At this next level, another person receives that data, decodes it, re-encodes it along with other data, and passes it on again. This may happen several times in the course of preparing an accounting report or statement. In essence, there are a series of the basic communication cycles occurring in the preparation of each report. Also, the accounting information is being reclassified at each level, thus moving up the abstraction ladder to higher and higher orders of abstraction. The accountant who finally prepares the report, therefore, is at a fairly high level of abstraction; and he must prepare his report at this high level, generally without any personal knowledge of the actual events that took place. It becomes apparent that all accounting reports are made on the inferential level, and that there is no such thing as a completely "objective" or "factual" accounting report.  

Another closely related factor is the fact that the accountant (at any level) seldom has first hand knowledge of the event he is reporting. As Noble and Niswonger point out, "Most of the representatives of a business who enter into transactions with outsiders are not responsible for the accounting records. It is necessary, therefore, that some evidence of transactions be provided as a basis for the records."  

Thus, the accountant must rely on the abstractions

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31 Above, p. 90.

32 Noble and Niswonger, op. cit., p. 8.
of events by persons who may not be fully aware of accounting terminology or of the characteristics which would most accurately describe the event. Certainly, this is partially offset by the facts that such persons have at least a modicum of training in recording such events; that special forms, such as sales slips, invoices, vouchers, and others, are provided for recording the information; and that the accountants evaluate and/or investigate the data carefully where required. Nevertheless, this points up some of the difficulties faced by the accountant in the encoding phase.

It is in the encoding phase that the traditional concept of the "accounting process" takes place; that is, the accumulation of the data, recording, classifying, summarizing, preparing the statements, etc. Perhaps it is because of the difficulties faced in this phase that the greatest emphasis has been placed here by accountants. Nevertheless, this is but one phase in the overall process of accounting.

**Message**

The product of the accountant's work -- or to put it differently, the end result of the encoding phase -- is the accounting message. This message consists of an ordered sequence of symbols -- words and figures -- that represent certain economic facts and events. As Professor Littleton says, "They [accounting messages] mark a climax in the long process of classifying and compressing transaction data."33

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Berlo tells us that a message has at least three factors which may be analyzed: (1) the message code, (2) the message content, and (3) the message treatment. The accounting message may also be analyzed according to these three factors.

**Message Code** — The code used in accounting is, of course, the technical terminology used by accountants. A code may be defined as "any group of symbols that can be structured in a way that is meaningful to some person." Similar terms have been used to describe a language: "A vocabulary of signs and way of using it." Therefore, accounting terminology qualifies as a code, or language, even though it shares a number of symbols with our ordinary, everyday language.

Some of the problems of the accounting language were discussed above. In addition, the accounting language has the same limitations as any other language. That is, accounting language does not correspond to the structure of economic reality; there are more things to be spoken about than there are words with which to speak of them. This is especially true of accounting because it relies so extensively on class words — words that represent categories in which a great number of individual events have been included.

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34 Berlo, *op. cit.*, p. 54.
36 Cherry, *op. cit.*, p. ?.
37 Above, pp. 118-19.
38 Above, p. 33.
Many of these individual events are included in a particular category only because of a few — perhaps, just one — characteristics they have in common with the other events in that category.39

The accounting profession has given a limited amount of attention to the problem of accounting terminology. For example, the AICPA Committee on Terminology has attempted to clarify the use of some accounting terms by suggesting definitions to a few of the more important words. While their pronouncements have been extremely limited, this committee has given formal recognition to the problem of words in accounting:

As a field of activity or thought extends, and a need for new modes of expression arises, the need may be met by the development of new words, or by expanding the meaning of words already in use. Either course has its dangers; in the one case that of not being understood, in the other that of being misunderstood. Where, as in the case of accounting, the need arises from the growth of an old activity, the second alternative is likely to be adopted more freely than the first and the resulting danger of being misunderstood is very real.40

While no definition can exactly prescribe the meaning of a word, this area of accounting terminology is one that needs considerable research and study in order to improve accounting communications.

Message Content — The content of an accounting message consists of information about selected economic events. Although accountants attempt to be completely objective in their reports, there is still a certain amount of selection involved. As one writer pointed out:

When observed facts are reported, the reporter, whether he knows it or not, to some extent selects the information he reports. Out of all the possible details which he could report, he selects what he regards as pertinent to a given situation. To greater or lesser degrees in particular situations, that selection is influenced by the reporter's particular bias or interests, from which no reporter, no matter how hard he tries, can be completely free.\footnote{Sommers, \textit{op. cit.}, p. 17.}

In his more routine statements, such as a balance sheet or income statement, the accountant is somewhat restricted in his choice of reportable data. Even in these statements, however, the accountant has a certain freedom in selecting the information that is included in the footnotes. In other reports, the accountant is given more freedom to select information. For example, in cost reports, the accountant includes any information that appears pertinent to the problem.\footnote{Anthony, \textit{op. cit.}, p. 316.} Thus, content is governed to some extent by the accountant in all of his reports.

Note that it is information contained in the accounting message and not meaning. Our discussion of meaning indicates that meaning is found in the evaluation of the information, and not as an intrinsic part of the message itself. As two writers recently commented:

Meaning is something that is found within human organisms. . . . If meaning did exist in messages and was hence transferable from one human organism to another, we would have little or no problem of communication. But meanings are not found in words, statements, messages. Thus, what the accountant is transmitting to the
destination is not meaning, but rather messages about a firm's economic status and progress.\textsuperscript{43}

Therefore, the content of accounting messages is information about economic events within the accounting entity.

**Message Treatment** -- The treatment of accounting messages has become, to a certain extent, rather formalized. That is, the decisions the accountant makes in selecting and arranging both the code and the content of the accounting message are generally influenced by accounting conventions or explicit directions in the firm's manual of accounting methods and procedures. But there is generally some leeway allowed in a particular situation.

The accountant can usually choose terminology that will best suit the receiver of the report; that is, he can use more technical or less technical terms depending on his audience. There is some danger in overdoing the simplification of terminology. Professor Littleton points out, "It is well to bear in mind the fact that layman's language is not closely defined. Too much translation out of necessary accounting vocabulary may partially defeat the purpose of the message."\textsuperscript{44} Nevertheless, the accountant does have some freedom in his treatment of the message code.

The structure of the message is also quite flexible. Even the more common accounting statements, such as the balance sheet and the income statement, may be prepared with different formats.\textsuperscript{45}

\textsuperscript{43} Bedford and Baladouni, op. cit., pp. 656-57.
\textsuperscript{44} Littleton, *Structure of Accounting Theory*, p. 78.
\textsuperscript{45} Karrenbrock and Simons, op. cit., pp. 17-20, 41-44.
The important thing to keep in mind in structuring a report is that "reports . . . serve their communication function best when they organize accounting data most understandably . . . . The sub-grouping of statement figures and the careful placement of the groups add a great deal to understandability."^46 There is a warning about structure, however: "Even the best technically arranged statements are less readable than a purely verbal test,"^47 and also, "the reader must know what significance to attach to the placement itself."^48 Thus, it is quite possible that some accounting statements can, or should be, prepared in regular report form in order to convey the most information. Other reports should continue with their basic formats to keep from confusing the reader; but even in those reports, the information can often be arranged in a more meaningful manner for specific purposes. The treatment of accounting messages is an area that offers an accountant the opportunity to use his imagination and ingenuity in communicating accounting information. The accountant should keep the purpose of a report in mind and arrange his data to fit that purpose.

These three factors -- code, content, and treatment -- combine to make up the accounting message. Analysis of each of these

^46 Littleton, Structure of Accounting Theory, p. 78.
^47 Ibid., p. 96.
^48 Ibid., p. 78.
factors is needed to improve the message, and at the same time, to improve the overall process of accounting communications.

Channel

The channel in the communication process refers to the means or media by which a message is transmitted. As discussed above, the communicator may choose either aural or visual signals to carry his message, and there is a variety of media to convey these signals. 49 Accounting, of course, could use most of these media as a channel if it were desired. But accounting messages are seldom communicated via aural signals, although there are some exceptions in isolated instances. Accounting messages are generally in some written form, beginning with the recording of the original transactions which must be based on written documentation. 50 From that point on, accountants are expected to leave written traces of their work so that their reports can be verified by other persons.

Accounting reports are transmitted through various media. For example, some statements are seen in newspapers; other reports are distributed in magazine form as annual reports; other reports are mailed individually, as required, to stockholders, bankers, and others; and other reports are hand delivered within the firm to various personnel. It can be concluded that the channel chosen depends primarily on the user or users for whom the message is intended.

49 Above, p. 62.

50 Noble and Niswonger, op. cit., p. 8.
The receiver in human communication is the one to whom the message is addressed or transmitted. If we talk about effective communications, "the receiver is the most important link in the communication process."\textsuperscript{51} The source should make each decision with respect to each of the communication factors with the receiver in mind:

When the source chooses a code for his message, he must choose one which is known to his receiver. When the source selects content to reflect his purpose, he selects content that will be meaningful to his receiver. When he treats the message in any way, part of his treatment is determined by his analysis of his receiver's communication (decoding) skills, his attitudes, his knowledge, and his place in a social-cultural context. The only justification for the existence of a source, for the occurrence of communication, is the receiver, the target at whom everything is aimed.\textsuperscript{52}

One of the most important elements in communication theory is the receiver — the destination and the user of the message.

In accounting, the message may be transmitted to "management, owners, creditors, and employees, as well as the government, trade associations, labor unions, and the public."\textsuperscript{53} Accountants should, of course, develop their messages with the receiver in mind. As Professor Singer says, accounting is "one response to a decision-maker's needs, a response which is worthwhile only when the right

\textsuperscript{51}Berlo, op. cit., p. 52.
\textsuperscript{52}Ibid.
\textsuperscript{53}Karrenbrock and Simons, op. cit., p. 2.
question has been answered." It does not follow, however, that a technical message, such as accounting reports, have to be written down to the uninformed layman. As Professor Kemp so aptly comments:

Financial statements are, after all, technical reports rendered by members of the accounting profession. There is no more reason to expect that the uninformed layman should be able to understand these reports without competent professional assistance than that he should be able to comprehend technical reports prepared by members of any other profession. Financial statements, then, should be directed toward the informed, competent reader.55

Obviously, no single message that is directed to a vast segment of society which consists of persons with varying knowledge and experiences can completely satisfy the needs of each one. One possible solution would be to develop a number of messages that contain essentially the same information and distribute them according to the user's capabilities. This, of course, would be an overwhelming task in many situations.

Another possible solution is to educate the user to know when he needs assistance in interpreting the message. That is, when the message cannot be decoded by the receiver and meaning assigned to it, the receiver should obtain assistance and have the message translated into terms he can evaluate.

Probably, the practical answer lies in a combination of these suggested solutions. That is, accountants should vary their messages

55 Kemp, op. cit., p. 132.
to meet the needs of different audiences, and receivers should obtain assistance in interpretation whenever they need it.

**Decoder**

The decoder of a message can be -- and usually is -- the receiver of the message. In the case where the receiver is an organization -- such as the government, a labor union, or a stock exchange -- then someone must decode the message for the organization. Also, as pointed out above, some persons need assistance in decoding a message.

Decoding refers to the process of analyzing the message, evaluating it, and assigning meaning to it.\(^\text{56}\) In accounting, interpretation has long been considered necessary in order to obtain meaning from a report. For example, Mason and Davidson say, "Interpretation deals with the general problem of making the reports more meaningful -- of bringing out relationships and trends which make the reported data more significant to the user."\(^\text{57}\) Interpretation, however, is not as inclusive in its implications as the term decoding. For example, Karrenbrock and Simons say that "they \(\text{users}\) have looked to the accountant to develop analytical data."\(^\text{58}\) Of course, there is nothing wrong in this, but this just creates another message. Decoding refers to the process of getting meaning from a message; it

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\(^{56}\)Above, pp. 64-67.

\(^{57}\)Mason and Davidson, *op. cit.*, p. 1.

is a function that must be performed before the communication becomes effective. Therefore, if the accountant prepares analytical data, it may help the receiver, but it does not encompass the decoding phase.

Decoding can be viewed from two perspectives. One is that decoding can be viewed as the same process as encoding. The decoder receives certain stimuli (the symbols), he then evaluates these symbols in the light of his knowledge and past experiences, and assigns some meaning to them. Decoding might also be viewed as the reverse of the encoding phase; that is, the decoder receives the symbols, then attempts to mentally go down the ladder of abstraction to the event in order to get the extensional meaning in the message. In either instance, decoding refers to the effort of some person to attach some meaning to the message that has been transmitted.

Feedback

The term feedback refers to the response that the source gets from the receiver of a message. In accounting, this concept has not received the attention in research that it deserves. Of course, the accounting profession has developed to the point it has because it has perceived some feedback from the receivers of accounting reports. Otherwise, the profession would not have known what was needed, when it was needed, or who needed it. But generally, the accountant has acted as if his job were completed when he prepared and transmitted a particular report.
Actually, the accountant should not consider a communication event complete until he has received some type of feedback. As pointed out above, feedback may result from either an overt or a tacit response; so if the accountant "looks" for feedback, he will be able to judge the effectiveness of his messages in most instances.

Feedback is an important element in communications because it serves to complete a circular process and make communications dynamic. One communication event leads into another; one communication event gives purpose and scope to the next.

Feedback is important in accounting, also. Feedback to the source gives information on the effectiveness of the report that was prepared and transmitted. Through feedback, the source can learn if additional information is needed before the receiver can reach a decision; through feedback, the accountant can learn what additional data he should include in the reports in order to adequately inform the receiver about economic events in the firm; through feedback, accounting becomes a dynamic process with one report influencing the response of the receiver, and the response influencing the next accounting report.

Summary Model

These nine elements -- source, event, originator, encoder, message, channel, receiver, decoder, and feedback -- make up the overall accounting process. More importantly, these elements and

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\[59\] Above, p. 66.
their interrelationships offer a unified concept of the nature of accounting. Taken together, these elements include all of the previously separated phases and segments of accounting so that each area of accounting can be fitted into the model and pointed in a common direction.

Summarizing briefly, the accounting process can be described in the following manner: Within an accounting entity (source), some economic event (event) occurs, which someone decides should be communicated (originator). The accountant (encoder) abstracts certain characteristics from the economic event — a transaction, symbolizes the event in words and figures, and arranges those symbols into an orderly sequence (message), which he then puts into a report and transmits (channel) to someone who needs or desires that information (receiver). The message is then evaluated by the receiver or someone else (decoder), who assigns meaning to the message and makes some response (feedback) which the source can discern, and the process can begin again.

This description of the accounting process is abstracted from the process nature of accounting so that it appears that one cycle of accounting communications must be complete before another can start, but this is not true. In actuality, these economic events occur in a constant stream, and the process of communicating about them is a continuous process. This continuous process has been broken up in this study in order to show that accounting is an orderly, serial process that should be considered in its entirety.
Once accounting itself is visualized as a process, it is much
easier to relate accounting messages to a process reality and to
make dynamic evaluations of accounting data.

III. SOME IMPLICATIONS OF A COMMUNICATIONS APPROACH

While a communications approach to accounting helps to clarify
the process of communication for accountants, it also has certain
implications for accounting theory. The model of the accounting
process developed above offers a unified framework within which
the basic nature of various "areas" of accounting can be explained.
For example, financial accounting, managerial accounting, governmental
accounting, hospital accounting, cost accounting, and others are
generally conceived by accountants (and particularly, by other
people) as being quite different in nature. Some accountants have
even proposed separate theories and principles for some of those
areas. But these areas are basically quite similar; that is, in
each of these areas, the purpose is to collect, classify, and report
certain types of data about economic events within a given entity.
Therefore, each of these areas can be described or explained in
terms of the accounting process as discussed above; each of these
areas involve all of the elements of that process.

Budgeting also fits into this overall process, along with those
areas discussed above, but with a quite different point of view.
While the other areas are concerned with reporting past events for
information about past performance, to help in making decisions,
and to help in some minor predictions; budgeting is concerned with
forecasting economic facts and events. In a very real sense, budgeting is a very high order abstraction; that is, the accountant (forecaster) abstracts certain information from various past economic events, evaluates and draws inferences from that data, combines those inferences with information from other sources, draws still more inferences, and so on up the ladder of abstraction until he makes a judgment (not a conclusion) from those inferences. This judgment is a prediction of future events, or a plan to be followed in influencing future events, that is based on the accountant's knowledge of past events. Thus, from past events, a message is encoded and transmitted to a receiver who will respond to that message according to the way he evaluates it. In the case of budgeting, feedback assumes even greater importance in the communication process, because the accountant is actively looking for responses to his message so that he can evaluate the results and initiate new messages to the receiver, if necessary, about the original message (altering it, correcting it).

Other areas of accounting also fit into the model. For example, auditing is an integral part of the encoding phase. As indicated above, the encoding phase involves many people in the course of developing the accounting message. The auditor fits in near the end of the encoding phase; he reviews the encoding phase, draws inferences from the data in the message, and includes a judgment in the accounting message. This judgment -- the auditor's opinion -- becomes a part of the accounting message for the receiver to decode and evaluate along with the other information contained
in the message. Thus, auditing fills a small -- but very important --
segment of one of the accounting elements.

Statement analysis, of course, is primarily concerned with
the decoding phase of accounting communications, but not entirely.
Because the elements of accounting are interrelated to a considerable
degree, statement analysis really starts with the encoding phase.
As indicated above, the treatment of the accounting message varies.
The code and the content of the message are selected and arranged
with the user in mind; this helps the receiver analyze the message.
Therefore, statement analysis starts in the encoding phase, but
it is primarily done in the decoding phase where the decoder assigns
meaning and significance to the accounting message.

These comments indicate the unifying effects of the communi-
cation approach to accounting. This approach also suggests a sense
of direction for accounting theory. For example, in cost accounting,
financial accounting, governmental accounting, etc., different
procedures and techniques are used depending on the type of entity,
and who the user of the accounting reports will be. This is as
it should be, but the same thing holds true for two different enti-
ties within one of those areas. Therefore, instead of attempting
to develop "principles" of financial accounting, "principles" of
governmental accounting, "principles" of managerial accounting,
"principles" (rules) of cost accounting, and so forth; accountants
should attempt to develop principles of collecting economic data,
principles of classifying and summarizing economic data, and princi-
ples of reporting economic data, and these principles should be
based on an understanding of accounting as a dynamic process concerned with a process reality. Within each of the "areas" of accounting differing procedures and techniques could be developed as needed, but they would be based on the principles of accounting as a whole. It is not the purpose of this study to propose such principles of accounting; this study is aimed at providing a frame of reference and a sense of direction in which accounting theory should be moving. It is submitted that the communication approach developed in this study provides such a frame of reference.

IV. SUMMARY COMMENTS

The basic hypothesis of this study is that accounting is a communication function. In this chapter, accounting has been related to elements of the communication process, with the result that accounting is presented as a unified, dynamic discipline. This communication frame of reference also provides a sense of direction in which accounting theory should move in order to make accounting what it should be -- a dynamic process concerned with a dynamic reality.
CHAPTER VI

SUMMARY AND CONCLUSIONS

The basic hypothesis of this study is that accounting is a communication function, and as such, that it can be related to and explained within a communication frame of reference. The approach of this study is to examine the process of communication in order to develop a model that contains elements which are applicable to accounting. A survey is made of the areas of General Semantics and communication theory in developing this hypothesis; and an attempt is made to orient accounting to a process point of view such as is found in those two disciplines.

The Communications Frame of Reference

Accounting has long been recognized as a form of communication -- that is, as a discipline which provides economic information to various persons. Accountants, however, have tended to explain the nature of accounting in economic and statistical terms. Economic terms are used because the subject matter of accounting is economic data; statistical terms because accountants use various statistical procedures and devices in the course of their work.
This study recognizes the vital role that both economics and statistics play in accounting, but neither of these disciplines offers a unified framework in which all of the various areas of accounting can be explained. On the other hand, the communication process offers a framework that is excellent for explaining the overall process of accounting.

Based on research in communication theory, a generalized model of the communication process is developed for purposes of this study. This model abstracts those elements from the process of communication that appeared pertinent in discussing the accounting process. These elements are (1) source, (2) event, (3) originator, (4) encoder, (5) message, (6) channel, (7) receiver, (8) decoder, and (9) feedback.

In the past, certain elements of this model have been stressed to the point of almost entirely excluding the others. For example, the vast majority of accounting thought and research has been concentrated on two of these elements -- the encoder and the message. In accounting terminology, these two elements comprise the accountant and his function of recording, classifying, and summarizing accounting data, and preparation of accounting reports. Other elements have either been considered separately or not at all.

From the communication point of view, all of these elements combined make up the process of communication. The elements, considered separately, give a very incomplete picture of the complex nature of communication. Also, when only one element (or a few of them) is considered, the vital interrelationships of the elements
are omitted. It is the interrelationship of these elements that gives communication its dynamic and process character — each element depends on all of the others in order to perform its function.

Accounting can also be considered in terms of this communication model. To do so, however, requires considerable change in the orientation a person has toward accounting.

**Orientation Toward Accounting as a Process**

Accounting has traditionally been conceived as consisting of several areas that are more or less distinct from each other. For example, when "accounting" is mentioned, it often refers only to the recording, classifying, summarizing, and reporting of accounting data. "Statement analysis" is treated as if it were a separate area outside of accounting. Other areas are similarly isolated in the thinking of many people.

This type of thinking — elementalistic and static — does an injustice to the discipline of accounting. Such thinking causes many people to think of accounting as only record-keeping, but accounting is more than that; it is a dynamic discipline that provides essential information to many people through its function of communication.

In this study, the conception of accounting as a process is developed. Based on a model of the communication process, accounting is discussed as a serial process consisting of several elements with each element, like a link in a chain, being essential to the overall process.
The process of accounting, as discussed in this study, consists of the following elements: (1) source -- the accounting entity; (2) event -- some economic fact or event observed as a transaction; (3) originator -- someone who perceives a need for information about certain economic events; (4) encoder -- the accountant who, along with the bookkeeping department and others, abstracts characteristics from the economic events and encodes them in accounting terminology; (5) message -- the financial report or statement which conveys information about the economic event(s); (6) channel -- the method and media by which the message is transmitted; (7) receiver -- the addressee or user of the accounting information; (8) decoder -- the person (generally the receiver) who evaluates the message and assigns some meaning or significance to it; and (9) feedback -- the information that the source perceives from the response of the receiver. It is submitted that all of these elements are a part of the accounting process, and that accounting should be viewed in terms of these combined elements, rather than in terms of one or more of the elements. This point of view leads to the notion that accounting is a process and not a group of separate and distinct areas.

**Toward a Non-aristotelian Evaluation of Accounting Data**

This communications approach to accounting offers many advantages to the accounting discipline. In the first place, adequate consideration given to all of the elements will improve the ability of the accountants to communicate accounting information. Other
advantages include the fact that the users of accounting information will become more aware of the limitations of accounting data and will evaluate it more carefully.

In this study, the system of General Semantics is discussed at some length. This system of thought and evaluation was developed in the light of the modern scientific view of reality. According to General Semanticists, reality should be viewed and evaluated as a process. This means that everything in nature is constantly changing; nothing stands still. This constant change is true for both tangible and intangible things; therefore, all evaluation should take this change into consideration.

General Semantics offers some techniques to help in orienting us toward this process viewpoint. First, the perception of events is viewed as an abstracting process. That is, only a few of the infinite number of characteristics of an event can be perceived by an individual. Even fewer characteristics are selected when the event is symbolized with words or other symbols. This awareness of the omission of characteristics orients the observer toward the process nature of events; he can then evaluate information from that event with due regard for the change that has already occurred, and that will occur, in that event.

The abstracting process also points up the symbolism of words — they are only a representation of the event and have no meaning in themselves. Recognition of the inadequacies of words leads the user to look to the event for the true meaning of the information in the word — in other words, to become extensionally oriented.
This non-aristotelian approach to a process reality thus assumes great importance to the person who must evaluate words or other symbols in order to learn about events of which he has no direct knowledge. Knowing that the symbols are only representations of the actual event, the evaluator can introduce process, uniqueness, order, and relations in his evaluations so that his interpretations will correspond to reality. Several semantic devices -- dating, indexing, hyphen, quotes, etc. -- are used to help make a language correspond to the structure of reality, thus making evaluations of information more meaningful and more realistic.

In accounting, this non-aristotelian approach can be particularly useful. Many of the people who evaluate accounting data have no first-hand experience of the events that are being reported. Thus, these people should evaluate those events with due regard for the inadequacies of any symbols in representing an event. Accounting reports particularly need careful evaluation in this respect because accounting terms are generally fairly high order abstractions (class words that represent a large number of unique events). Therefore, it is suggested that accountants and users of accounting information should adopt the non-aristotelian methodology of General Semantics in order to make accounting information conform more closely to the economic reality that it represents.

Conclusions

The findings of this study would seem to indicate that accounting is a communication function, and as such, that accounting
should be viewed within a communication frame of reference. Such a communication frame of reference leads to the rather obvious conclusion that accounting itself is a process consisting of several interrelated elements that should be considered as a whole. Accounting information is also a symbolic representation of the economic events of some accounting entity; as such, it requires careful evaluation in order to obtain realistic meaning about those events. The system of General Semantics offers techniques and devices that appear significant in the evaluation of accounting data; these concepts lead to viewing accounting as a process discipline concerned with a process reality. It is concluded that this point of view most accurately describes the nature of the accounting discipline.

It is suggested that the communication frame of reference provides a sense of direction for accounting theory. This frame of reference might serve as a basis (1) for additional research toward a general theory of all of accounting and (2) for the refinement of the present structure of accounting theory.
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VITA

Loomis Harvey Toler, the son of Mr. and Mrs. Jimmie H. Toler, was born in Johnston County, North Carolina on September 25, 1933. He attended various public schools in North Carolina through the ninth grade.

In January, 1951, he entered the U. S. Navy, serving until July, 1954 when he was honorably discharged as a Radarman Second Class. While in the Navy, he passed the high school and first year college level General Educational Development examinations given by the U. S. Armed Forces Institute.

In October, 1954, he was married to the former Emma Lucille Griswold of Selma, North Carolina. In January, 1956, he entered Atlantic Christian College, Wilson, North Carolina as a part-time, special student. In May, 1960, he was graduated Magna Cum Laude with a B.S. degree in Business Administration.

He entered Graduate School, Louisiana State University in June, 1960, and completed his M.B.A. degree in August, 1961. He continued work at Louisiana State University where he is now a candidate for the degree of Doctor of Philosophy in the Department of Accounting.
EXAMINATION AND THESIS REPORT

Candidate: Loomis Harvey Toler

Major Field: Accounting

Title of Thesis: A Communications Approach to the Accounting Process with Special Reference to General Semantic Concepts.

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination: July 30, 1963