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TOWARD A MORE SYSTEMATIC DRAFTING AND INTERPRETING OF THE INTERNAL REVENUE CODE: EXPENSES, LOSSES AND BAD DEBTS

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SUPPOSE that you, as a reasonable man, are asked whether the following two sets of rules mean exactly the same thing. If they do and if you intend to communicate your message as effectively as possible, which of the two sets would you choose to state the organizational rules of your law school?

Set 1

- A. The financial committee shall be chosen from among the general committee.
- B. No one shall be a member of both the general and library committees unless he is also on the financial committee.
- C. No member of the library committee shall be on the financial committee.¹

Set 2

- A. The financial committee shall be chosen from among the general committee.
- B. No member of the general committee shall be on the library committee.

We suspect that most readers will have little difficulty in deciding the second question; but even after careful reading of the two sets of rules, they will remain a little puzzled as to whether both sets say the same thing. We further suspect that lawyers waste a great deal of their mental energy by using inadequate and inappropriate intellectual tools to figure out similar logical problems in their everyday work. A symbolic logician could quickly ascertain that the two sets of rules are equivalent and relieve his mind to focus on the more important problem of deciding which is the more appropriate choice. Since law

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¹ This example is given in Berkeley, *The Algebra of States and Events*, 78 *Scientific Monthly* 232 (1954).

schools do not yet offer training in symbolic logic, most lawyers who read this article are probably not acquainted with this tool. It therefore would not be appropriate to include here a formal proof in symbolic notation of the equivalence of these two sets of rules. However, to persuade those who may doubt this asserted equivalence, perhaps an alternative technique of symbolic logic—the truth table analysis—will be convincing. A modified analysis² of this type indicates that there are just eight possible states of affairs dealt with by these two sets of rules, and in every state of affairs each set of rules has the same effect. This is shown in Table 1. For the lawyer untrained in symbolic logic some of the clarity and precision of analysis afforded by this incisive analytical tool can be achieved by using the method of drafting and interpretation illus-

TABLE 1

States of Affairs			Effects		
<i>A person is a member of the following committees:</i>					
1.	financial	general	library	By Set 1 not permitted	By Set 2 not permitted
2.	financial	general		permitted	permitted
3.	financial		library	not permitted	not permitted
4.	financial			not permitted	not permitted
5.		general	library	not permitted	not permitted
6.		general		permitted	permitted
7.			library	permitted	permitted
8.	none			permitted	permitted

trated in this article. To understand this method a lawyer does not need to have any training in symbolic logic. Essentially, the method suggested here is an effort to adapt some of the elementary notions of symbolic logic so that they can be used by the practicing attorney to help clarify the intended meanings of statements in legal documents. This method, which is called "systematic-pulverization," has been described in detail in a previous article.³ A thorough understanding of systematic-pulverization as explained in that article is a prerequisite for section I of this article. The system of logic upon which systematic-pulverization is based deals with the logical connections expressed in ordinary English by such words as "and," "or," "if . . . then . . ." and "not." The technical names of the logical connections expressed by these words and the

² This technique rapidly becomes cumbersome as the number of factors increases. The lines in the truth-table increase exponentially with the number of factors. $L = 2^n$, where L is the number of lines and n is the number of factors. For example, a situation involving ten factors would require a 1024-line truth-table; a fifteen-factor situation, a 32,768-line truth-table. In such situations the analysis would be too unwieldy unless the problem were programmed for a digital computer. See note 15 infra.

³ Allen, *Symbolic Logic: A Razor Edged Tool for Drafting and Interpreting Legal Documents*, 66 *Yale L. J.* 833 (1957).

symbols that represent them in systematically-pulverized form are conjunction (&), inclusive disjunction (&OR), exclusive disjunction (OR), implication (————), coimplication (=====) and negation (NOT). For convenience of reference a brief summary and illustration of systematic-pulverization is set forth in Table 2.

TABLE 2

LOGICAL CONNECTIVE	SYMBOL	EXAMPLES	
		Ordinary Verbal Form	Systematically-Pulverized Form
Conjunction	1. & 2.	The six logical connectives dealt with here are conjunction, exclusive disjunction, inclusive disjunction, negation, implication and coimplication.	The six logical connectives dealt with here are 1. conjunction & 2. exclusive disjunction & 3. inclusive disjunction & 4. negation & 5. implication & 6. coimplication
Exclusive Disjunction	1- OR 2-	A person either understands them or he does not.	A person either 1-does OR 2-does NOT understand them.
Inclusive Disjunction	1) 2) &OR	Exclusive disjunction and/or inclusive disjunction may prove tricky for a while, but one soon learns to distinguish them.	1) Exclusive disjunction 2) &OR inclusive disjunction may prove tricky for a while, but one soon learns to distinguish them.
Negation	NOT	The explanation here should not be hard to understand.	The explanation here should NOT be hard to understand.
Implication	1. _____ 2.	If a person can read, then he should be able to understand it very easily.	1. A person can read _____ 2. HE SHOULD BE ABLE TO UNDERSTAND IT VERY EASILY.
Coimplication	1. _____ 2.	If, and only if, a person can read, then he should be able to understand it very easily.	1. A person can read _____ 2. HE SHOULD BE ABLE TO UNDERSTAND IT VERY EASILY.
1. Antecedent 2. CONSEQUENT			

To illustrate the usefulness of systematic-pulverization it will be helpful to consider a horrible example of draftsmanship, which is, unfortunately, similar in form to a part of one of the most important federal statutes. Suppose that one is asked what the following statement means:

A reader should be willing to give his careful attention to any knowledge that will become valuable to him during the coming year. In the case of a reader other than a lawyer (1) this assertion does not apply to knowledge that is not about drafting; and (2) where the knowledge that is not about drafting will become valuable during the coming year the gain resulting therefrom will be considered here to be a gain that requires so long to achieve that it is probably not worth the time. For purposes of the previous sentence the phrase "knowledge that is not about drafting" refers to knowledge other than knowledge that is professionally or financially useful (as the case may be) in connection with the reader's writing or drafting; or knowledge the gain from the value of which will be sustained in the reader's writing or drafting. Any skill of expression achieved by a reader (other than a lawyer) as a result of the information that he acquires, discovers or derives from an understanding of this article's nonlegal information the benefits of which could be useful to improve even the writing or drafting of this article shall be regarded as knowledge becoming valuable during the coming year for purposes of this paragraph (except that the second and third sentences do not apply) but only if the information in this article in its effect upon increasing skill of expression was valuable (without regard to that particular reader's discovery, acquisition or derivation) at the time that such skill of expression would have been achieved by that reader.⁴

Hardly anyone would blame a reader for deserting the author of such unduly complex writing. However, there are occasions when lawyers are forced to try to unravel what is meant in statements that are just as awkwardly constructed. This article will attempt to offer some help for doing that job. In addition, it will attempt to be more than just a tirade against bad draftsmanship. It will illustrate technique for achieving more clarity in legal drafting.

Tax specialists may detect a certain similarity between the hypothetical paragraph and certain portions of Section 166 (BAD DEBTS) of the Internal Revenue Code. The similarity, which is one of formal structure, becomes more apparent when the two statements are written side by side.

Section 166 (a)(1), (d) and (f) of the Internal Revenue Code	The Hypothetical Paragraph
(a) GENERAL RULE	
(1) WHOLLY WORTHLESS DEBTS	
There shall be allowed as a de- duction	A reader should be willing to give his care- ful attention to
any debt which becomes worth- less during the taxable year	any knowledge that will become valuable to him during the coming year

⁴ Hereafter this entire paragraph shall be referred to as the "hypothetical paragraph."

(d) NONBUSINESS DEBTS

(1) GENERAL RULE

In the case of a taxpayer other than a corporation

(A) subsection (a) shall not apply to any nonbusiness debts; and

(B) where any nonbusiness debt becomes worthless during the taxable year the loss resulting therefrom shall be considered a loss from the sale or exchange, during the taxable year, of a capital asset held for not more than six months.

In the case of a reader other than a lawyer

(1) this assertion does not apply to knowledge that is not about drafting; and

(2) where the knowledge that is not about drafting will become valuable during the coming year the gain resulting therefrom will be considered here to be a gain that requires so long to achieve that it is probably not worth the time.

(2) NONBUSINESS DEBT DEFINED

For purposes of paragraph (1) the term "nonbusiness debt" means a debt other than

(A) a debt created or acquired (as the case may be) in connection with the taxpayer's trade or business; or

(B) a debt the loss from the worthlessness of which is incurred in the taxpayer's trade or business

For purposes of the previous sentence the phrase "knowledge that is not about drafting" refers to knowledge other than knowledge that is professionally or financially useful (as the case may be)

in connection with the reader's writing or drafting; or knowledge the gain from the value of which will be sustained in the reader's writing or drafting.

(f) GUARANTOR OF CERTAIN NONCORPORATE OBLIGATIONS

A payment by the taxpayer (other than a corporation) in discharge of part or all of his obligation as a guarantor, endorser or indemnitor of a noncorporate obligation

the proceeds of which were used in the trade or business of the borrower

shall be treated as a debt becoming worthless within such taxable year for purposes of this section (except that subsection (d) does not apply)

Any skill of expression achieved by a reader (other than a lawyer) as a result of the information

that he acquires, discovers or derives from an understanding of this article's non-legal information

the benefits of which could be used to improve even the writing or drafting of this article

shall be regarded as knowledge becoming valuable during the coming year for purposes of this paragraph (except that the second and third sentences do not apply)

Section 166 (a)(1), (d) and (f) of the
Internal Revenue Code—*Continued*

but only if the obligation of the borrower to the person to whom such payment was made was worthless (without regard to such guaranty, endorsement or indemnity) at the time of such payment.⁵

The Hypothetical Paragraph—
Continued

but only if the information in this article in its effect upon increasing skill of expression was valuable (without regard to that particular reader's discovery, acquisition or derivation) at the time that such skill of expression would have been achieved by that reader.

In Section 166 and in the hypothetical paragraph it is not the meaning of the words (semantics) that is the chief cause of making the two statements so difficult to understand. It is their complex logical structure (syntax) that must shoulder the major portion of the blame. If there is any lingering doubt that meaning has been effectively hidden in a tangle of complex construction, perhaps that doubt can be dispelled by attempting to answer the following questions on the basis of what is stated in the hypothetical paragraph.⁶

(For answering all of these questions assume that there is a rule of interpretation to the effect that if the hypothetical paragraph does not explicitly state that a given reader should give his careful attention to knowledge that will become valuable during the coming year, then that reader should not do so. This is equivalent to the rule under the Internal Revenue Code that if the statute does not explicitly state that an item is deductible from gross income, then that item is not deductible.)

1. Should all lawyer-readers be willing to give their close attention to knowledge that will become valuable to them during the coming year even if that knowledge is not financially useful in connection with their drafting?
2. Should all nonlawyer-readers be willing to give their close attention to all knowledge that will become valuable to them during the coming year?
3. If this article contains knowledge that is not about drafting which will become valuable to a nonlawyer-reader during the coming year, but this information is nonlegal in nature and it would not help to improve the writing or drafting of this article, should such a reader be willing to give his close attention to this article? Should such a reader be unwilling to give his close attention to this article?

⁵ The parallel sets of terms in the two statements are the following:

debt
worthless
the taxable year
taxpayer
corporation
nonbusiness
loss
trade or business
payment
obligation
guarantor
endorser
indemnitor
noncorporate
borrower

knowledge
valuable
the coming year
reader
lawyer
not about drafting
gain
writing or drafting
skill of expression
information
discovers
acquires
derives
nonlegal
this article

⁶ If the reader wishes to compare his answers to those we suggest, see page 19 *infra*.

4. If the reader is not a lawyer and the knowledge contained in this article is not only not about drafting, but it also will not become valuable to the reader during the coming year, does the hypothetical paragraph state that such a reader should give this article his careful attention? Does it state that such a reader should not give this article his careful attention? Does it state that the gain from such knowledge is considered to require so long to achieve that it is probably not worth the time?
5. Suppose that:
 - (1) the reader is not a lawyer
 - (2) this article contains knowledge that will become valuable to the reader during the coming year
 - (3) such knowledge will not be professionally or financially useful in connection with the reader's writing or drafting
 - (4) the gain from such knowledge will not be sustained in the reader's writing or drafting
 - (5) the reader will increase his skill of oral expression from the nonlegal information he acquires from this article
 - (6) whether or not the nonlegal information in this article is in fact discovered by the reader, such information is nevertheless valuable to others at the time that this particular reader could have achieved such skill of oral expression
 - (7) the nonlegal information in this article can be of help in improving the writing or drafting of this article itself.

Under these conditions is the article probably not worth the time that it will take to read it? Should such a reader give his careful attention to this article?

Figuring out the answers to these questions should demonstrate that a considerable amount of careful analysis in interpreting the hypothetical paragraph is required in order to uncover the appropriate answers. If the hypothetical paragraph were complicated still further so that it paralleled all of Section 166, instead of only part; the resulting statement would indeed make large demands upon the reader's ability to comprehend—as well as impinging drastically upon his patience.

It is suggested that the mental energy expended in obtaining such answers, and the probability of mistake in doing so, could be reduced by drafting this hypothetical paragraph in a more systematic manner. This article is an effort to further develop a systematic method of drafting and interpretation.

In the first section of this article, "systematic-pulverization" is used to untangle the logical connections in Sections 162 (Expenses), 165 (Losses), and 166 (Bad Debts) of the Internal Revenue Code and to simplify these three complex sections by expressing them more systematically. This part of the article analyzes the syntax of written statements, describing the methods of expressing the logical relationships between constituent parts of a statement in more orderly fashion. The second section deals with the semantic problem of assigning the appropriate meaning to a word or phrase in a given context. This is a problem with both logical and descriptive words. An approach to interpretation that has the important earmarks of scientific method is suggested and illustrated.

I. SYSTEMATIC-PULVERIZATION OF SECTIONS 162 (EXPENSES),
165 (LOSSES), AND 166 (BAD DEBTS)

In essence, systematic-pulverization is putting a statement into more orderly form by highlighting the logical connectives between its various constituent elements. Of course, in most statements two or more logical connectives occur at the same time. The hypothetical paragraph is an example of a combination of many logical connectives. The interpretation of these logical connectives can be illustrated by an analysis of the logical form of the hypothetical paragraph. It will be helpful to consider how the hypothetical paragraph will look in systematically-pulverized form as a first step in the task of transforming Sections 162, 165, and 166 of the Internal Revenue Code into such form.⁷

The process of transforming an ordinary statement in a natural language into systematically-pulverized form may be conveniently classified into four steps:

- A. Pulverize the statement into its constituent elements.
- B. Rearrange the constituent elements into approximately the form of an implication (or coimplication).
- C. Determine the appropriate schematic form by ascertaining the appropriate logical connection intended by the words used in the statement.
- D. Write the statement in systematically-pulverized form.

This process can be illustrated on the first sentence of the hypothetical paragraph which reads: "A reader should be willing to give his careful attention to any knowledge that will become valuable to him during the coming year."

- A. Pulverize into constituent elements:

P = Knowledge will become valuable to a reader during the coming year

Q = THAT READER SHOULD BE WILLING TO GIVE HIS CAREFUL ATTENTION TO SUCH KNOWLEDGE.

- B. Rearrange into the form of an implication:

IF knowledge will become valuable to a reader during the coming year, THEN that reader should be willing to give his careful attention to such knowledge.

- C. Determine the schematic form by ascertaining the logical connections intended:

In this case there is only one set of logical words to be interpreted. The question is which the "if . . . then . . ." indicates: implication or coimplication. Our evaluation is that it is intended here to indicate implication, so the schematic form is:

$$\frac{1. P}{2. Q}$$

⁷ The hypothetical paragraph has the virtue of being slightly more simple in its formal structure. Becoming familiar with the pulverizing process is probably achieved more readily if one begins with such a statement rather than with a more complex one. Also, since the hypothetical paragraph is similar to part of Section 166, the analysis of it will be helpful in systematically pulverizing Section 166 later.

D. Express in systematically-pulverized form:

1. Knowledge will become valuable to a reader during the coming year
2. THAT READER SHOULD BE WILLING TO GIVE HIS CAREFUL ATTENTION TO SUCH KNOWLEDGE.

The remaining sentences of the hypothetical paragraph add additional qualifying conditions which must be satisfied before it may be concluded that the reader should be willing to give his careful attention to such knowledge. The process of pulverizing and determining what logical relationships were intended to join the various constituent elements is done in a similar manner for the remaining sentences. One convenient pulverization of the entire hypothetical paragraph and its corresponding portion of Section 166 is that shown in Table 3.

The process of determining just which logical relationship is intended to prevail between various constituents is not automatic. Often there will be some doubt as to which of two logical connectives is the appropriate choice. Such a decision should be made according to some criteria. Section II is an effort to develop a systematic approach to this problem of interpretation. Once the appropriate logical relationships have been ascertained the symbolic logician can manipulate the complicated statement into more simple propositions according to precise rules of analysis. He knows that in the logical system upon which systematic-pulverization is based every statement, no matter how complex, can be reduced to the conjunction of a set of simple propositions. These conjoined simple propositions, which are equivalent to the complex statement, are here called "subsidiary propositions." The detailed specification of the subsidiary propositions of statements 1.0 through 6.0 in the next few pages is included here to give readers who are not trained in modern logic some practice in determining the subsidiary propositions of a complex statement. The subsidiary propositions of statements 1.0 through 6.0 can be deduced by applying one or more of the following six elementary theorems one or more times:

- T1. Given that "P IMPLIES (Q1 and Q2)," it may be concluded that "P IMPLIES Q1" and "P IMPLIES Q2."
- T2. Given that "P COIMPLIES Q," it may be concluded that "P IMPLIES Q" and "Q IMPLIES P."
- T3. Given that "(P1 &OR P2) IMPLIES Q," it may be concluded that "P1 IMPLIES Q" and "P2 IMPLIES Q."
- T4. Given that "P IMPLIES Q," it may be concluded that "NOT Q IMPLIES NOT P."
- T5. Given that "NOT (P1 &OR P2) IMPLIES Q," it may be concluded that "NOT P1 AND NOT P2 IMPLIES Q."
- T6. Given that "P1 IMPLIES that (P2 IMPLIES Q)," it may be concluded that "P1 AND P2 IMPLIES Q."

TABLE 3

Letters	Section 166 (a)(1), (d) and (f)	The Hypothetical Paragraph
P	A debt becomes worthless during the taxable year	Knowledge will become valuable to a reader during the coming year
Q1P1	the taxpayer is a corporation	that reader is a lawyer
Q1P2	that debt is a business debt	that knowledge is about drafting
Q1P32	a payment by that taxpayer is made in discharge of part OR all of his obligation as a guarantor &OR endorser &OR indemnitor of a non-corporate obligation	skill of expression is achieved by that reader as a result of the information he discovers &OR acquires &OR derives from an understanding of this article's nonlegal information ⁸
Q1P33	the proceeds of that noncorporate obligation were used in the trade &OR business of the borrower	the benefits of this article's nonlegal information could be used to improve even the writing &OR drafting of this article
Q1P34	that noncorporate obligation of the borrower to the person to whom the payment was made was worthless (without regard to that guaranty &OR endorsement &OR indemnity) at the time of that payment	that nonlegal information of this article in its effect upon increasing skill of expression was valuable (without regard to that particular reader's discovery &OR acquisition &OR derivation) at the time that such skill of expression was achieved by that reader
Q1Q	THAT DEBT SHALL BE ALLOWED AS A DEDUCTION	THAT READER SHOULD BE WILLING TO GIVE HIS CAREFUL ATTENTION TO SUCH KNOWLEDGE
Q2P3	one of the conditions of subsection 2.1.3 is NOT satisfied	one of the conditions of subsection 2.1.3 is NOT satisfied
Q2Q	THE LOSS RESULTING THEREFROM SHALL BE CONSIDERED A LOSS FROM THE SALE &OR EXCHANGE, DURING THE TAXABLE YEAR, OF A CAPITAL ASSET HELD FOR NOT MORE THAN SIX MONTHS	THE GAIN RESULTING THEREFROM WILL BE CONSIDERED HERE TO BE A GAIN THAT REQUIRES SO LONG TO ACHIEVE THAT IT IS PROBABLY NOT WORTH THE TIME
R1	A debt is created &OR acquired in connection with a taxpayer's trade &OR business	Knowledge is financially &OR professionally useful in connection with a reader's writing &OR drafting
R2	the loss from the worthlessness of a debt is incurred in the taxpayer's trade &OR business	the gain from the value of knowledge is sustained in the reader's writing &OR drafting
S	THAT DEBT IS A BUSINESS DEBT FOR PURPOSES OF SUBSECTION 1.0	THAT KNOWLEDGE IS KNOWLEDGE ABOUT DRAFTING FOR PURPOSES OF SUBSECTION 1.0

⁸ Notice that Q1P32 might be further pulverized into still more simple propositions:

Q1P321 = skill of expression is achieved by that reader as a result of the information he discovers from an understanding of this article's nonlegal information

Q1P322 = skill of expression is achieved by that reader as a result of the information he acquires from an understanding of this article's nonlegal information

Q1P323 = skill of expression is achieved by that reader as a result of the information he derives from an understanding of this article's nonlegal information.

Just how far it is appropriate to continue the process of pulverizing a statement into more and more simple constituents varies from case to case and depends on the judgment of the analyst. On this each analyst must exercise his own.

A step-by-step dissection of the logical structure of the hypothetical paragraph reveals a complicated set of logical connectives. First, observe that an *implication* of the form:

$$1.0 \qquad \frac{1. \ P}{2. \ Q}$$

only says "IF P THEN Q." It does not say: "IF NOT P, THEN NOT Q." It specifically leaves open the possibility that Q may result from some cause other than P. In other words, an implication states merely that P is one cause of Q; it does not assert that P is the only cause of Q. If the first pulverization of the hypothetical paragraph is into just two constituent elements, it can be represented by the schematic, 1.0. It is then of the form:

IF knowledge will become valuable to a reader during the coming year, THEN a specified consequent Q follows.

Second, notice that a statement like 1.0, involving only implication, might be an abbreviation for an even more complex statement such as:

$$2.0 \qquad \frac{1. \ P}{2. \ Q1} \\ \&3. \ Q2$$

This statement involves both implication and *conjunction*. The Q in 1.0 abbreviates the conjunction "Q1 & Q2" of 2.0. The schematic 2.0 can be interpreted as asserting: "IF P, THEN Q1 AND Q2." Notice that this is equivalent to the pair of subsidiary propositions:

- 1. IF P, THEN Q1.
- &2. IF P, THEN Q2.

In the hypothetical paragraph this further pulverization would explicitly point out that consequent Q is made up of two simpler propositions:

- Q1. that such a reader should be willing to give his careful attention to such knowledge under certain conditions
- &Q2. that the gain resulting therefrom will probably not be worth the time under certain other conditions.

Third, it is possible that the implication-conjunction statement of 2.0 might be an abbreviation for an even more complex statement such as:

$$3.0 \qquad \frac{1. \ P}{2. \ \frac{1. \ Q1P}{2. \ Q1Q}} \\ \&3. \ Q2$$

This statement involves *coimplication*, as well as implication and conjunction. The Q1 of 2.0 abbreviates the coimplication of 3.0:

$$\frac{1. \ Q1P}{2. \ Q1Q}$$

What 3.0 asserts is: "IF P, THEN (Q1P IF AND ONLY IF Q1Q) and Q2."
This is equivalent to the pair of propositions:

1. IF P, THEN Q1P IF AND ONLY IF Q1Q.
- &2. IF P, THEN Q2.

It is also equivalent to the three subsidiary propositions:

1. IF P, THEN IF Q1P, THEN Q1Q.
- &2. IF P, THEN IF NOT Q1P, THEN NOT Q1Q.
- &3. IF P, THEN Q2.

In the hypothetical paragraph this further pulverization is a breakdown of Q1 into two constituents jointed by coimplication:

IF AND ONLY IF certain conditions are fulfilled, THEN such a reader should give his careful attention to such knowledge.

At this stage the schematic is still a relatively simple one. Complexity of form has been added to the initial implication of 1.0 in single steps. In the next four stages complexity will be added more rapidly to arrive at a more detailed schematic representation of the logical form of the hypothetical paragraph. At the fourth stage the implication-conjunction-coimplication statement of 3.0 can be regarded as an abbreviation for a still more complex statement such as:

$$\begin{array}{r}
 4.0 \quad \begin{array}{l}
 1. \quad P \\
 \hline
 2. \quad 1. \quad 1) \quad Q1P1 \\
 \quad \quad \quad 2) \quad \&OR \quad Q1P2 \\
 \quad \quad \quad 3) \quad \&OR \quad Q1P3 \\
 \hline
 \quad \quad \quad 2. \quad Q1Q \\
 \&3. \quad Q2
 \end{array}
 \end{array}$$

This more complete representation involves *inclusive disjunction* in addition to the other logical connectives in 3.0. The Q1P of 3.0 abbreviates the inclusive disjunction "Q1P1 &OR Q1P2 &OR Q1P3" of 4.0. What 4.0 asserts is:

IF P, THEN (Q1P1 &OR Q1P2 &OR Q1P3 IF AND ONLY IF Q1Q) AND Q2.

This, in turn, is equivalent to a pair of propositions and three propositions the same as those shown for 3.0, except that the inclusive disjunction "Q1P1 &OR Q1P2 &OR Q1P3" is substituted for Q1P. It is also equivalent to the five subsidiary propositions:

1. IF P, THEN IF Q1P1, THEN Q1Q.
- &2. IF P, THEN IF Q1P2, THEN Q1Q.
- &3. IF P, THEN IF Q1P3, THEN Q1Q.
- &4. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P3, THEN NOT Q1Q.
- &5. IF P, THEN Q2.

In the hypothetical paragraph this further pulverization is a breakdown of the "certain conditions" of Q1P into three inclusive disjuncts:

- Q1P1) that reader is a lawyer
 Q1P2) &OR that knowledge is about drafting
 Q1P3) &OR a set of other conditions occurs

At the fifth stage 4.0 can be spelled out in greater detail by:

- | | | |
|-----|----------|-------------|
| | 1. P | |
| | 2. 1. 1) | Q1P1 |
| | 2) &OR | Q1P2 |
| 5.0 | 3) &OR | 1. NOT Q1P1 |
| | | &2. Q1P32 |
| | | &3. Q1P33 |
| | | &4. Q1P34 |
| | 2. Q1Q | |
| | &3. Q2 | |

This statement adds *negation* and more conjunction to the logical connectives of 4.0. The Q1P3 of 4.0 abbreviates the conjunction "NOT Q1P1 & Q1P32 & Q1P33 & Q1P34" of 5.0. The statement can be interpreted as expressing the proposition: "IF P, THEN [Q1P1 &OR Q1P2 &OR (NOT Q1P1 AND Q1P32 AND Q1P33 AND Q1P34) IF AND ONLY IF Q1Q] AND Q2." It can also be interpreted as expressing a pair, three or five propositions similar to those shown for 4.0. In addition, it can be interpreted as expressing the following seven subsidiary propositions:

1. IF P, THEN IF Q1P1, THEN Q1Q.
- &2. IF P, THEN IF Q1P2, THEN Q1Q.
- &3. IF P, THEN IF NOT Q1P1 AND Q1P32 AND Q1P33 AND Q1P34, THEN Q1Q.
- &4. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P32, THEN NOT Q1Q.
- &5. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P33, THEN NOT Q1Q.
- &6. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P34, THEN NOT Q1Q.
- &7. IF P, THEN Q2.

In the hypothetical paragraph this further pulverization is the breakdown of the "set of other conditions" of Q1P3 into four conjunctive constituents:

- Q1P31. that reader is NOT a lawyer
- & Q1P32. skill of expression is achieved by that reader as a result of the information he discovers &OR acquires &OR derives from an understanding of this article's nonlegal information
- & Q1P33. the benefits of this article's nonlegal information could be used to improve even the writing &OR drafting of this article
- & Q1P34. that nonlegal information of this article in its effect upon increasing skill of expression was valuable (without regard to that particular reader's discovery &OR acquisition &OR derivation) at the time that such skill of expression was achieved by that reader.

At the sixth stage the Q2 of 5.0 is shown in more detail. It is an abbreviation for the implication:

1. NOT Q1P1
- &2. NOT Q1P2
- &3. NOT Q1P32 &OR NOT Q1P33 &OR NOT Q1P34
4. Q2Q

Thus, the more complex representation of 5.0 would be:

- | | | | |
|-----|-----|--------|---------------------------------------|
| 6.0 | 1. | P | |
| | 2. | 1. | 1) Q1P1 |
| | | | 2) &OR Q1P2 |
| | | | 3) &OR 1. NOT Q1P1 |
| | | | &2. Q1P32 |
| | | | &3. Q1P33 |
| | | | &4. Q1P34 |
| | | 2. Q1Q | |
| | &3. | 1. | NOT Q1P1 |
| | | &2. | NOT Q1P2 |
| | | &3. | NOT Q1P32 &OR NOT Q1P33 &OR NOT Q1P34 |
| | | 4. | Q2Q |

This can be interpreted as expressing the proposition:

IF P, THEN [Q1P1 &OR Q1P2 &OR (NOT Q1P1 AND Q1P32 AND Q1P33 AND Q1P34) IF AND ONLY IF Q1Q] AND [IF NOT Q1P1 AND NOT Q1P2 AND (NOT Q1P32 &OR NOT Q1P33 &OR NOT Q1P34), THEN Q2Q].

It may also be interpreted as expressing two, three, five or seven propositions similar to those indicated for 5.0. In addition, it may be interpreted as expressing the following nine subsidiary propositions:

1. IF P, THEN IF Q1P1, THEN Q1Q.
- &2. IF P, THEN IF Q1P2, THEN Q1Q.
- &3. IF P, THEN IF NOT Q1P1 AND Q1P32 AND Q1P33 AND Q1P34, THEN Q1Q.
- &4. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P32, THEN NOT Q1Q.
- &5. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P33, THEN NOT Q1Q.
- &6. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P34, THEN NOT Q1Q.
- &7. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P32, THEN Q2Q.
- &8. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P33, THEN Q2Q.
- &9. IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P34, THEN Q2Q.

In the hypothetical paragraph this is the pulverization of Q2 into an implication consisting of three conjoined antecedents and a consequent:

Q2P1. the reader is NOT a lawyer

Q2P2. the knowledge is NOT about drafting

Q2P3. one of the conditions of subsection 2.1.3. is NOT satisfied

Q2Q. THE GAIN RESULTING THEREFROM WILL BE CONSIDERED
HERE TO BE A GAIN THAT REQUIRES SO LONG TO ACHIEVE
THAT IT IS PROBABLY NOT WORTH THE TIME.

Most of the hypothetical paragraph is represented by 6.0. There is one addition necessary for it to be a complete schematic representation, a definition of Q1P2 such as the following:

6.01	1.	1)	R1
		2)	&OR R2
	2.	S	

where S is Q1P2 for purposes of 6.0. This proposition asserts: “(R1 &OR R2) IF AND ONLY IF S,” which is equivalent to the three subsidiary propositions:

1. If R1, then S.
- &2. If R2, then S.
- &3. IF NOT R1 AND NOT R2, THEN NOT S.

The coimplication expressed in 6.01 is the definition given in the hypothetical paragraph of what constitutes “knowledge about drafting” for the purposes of the hypothetical paragraph. Taken together 6.0 and 6.01 are a schematic representation of both the hypothetical paragraph and the corresponding portions of Section 166, from which the systematically-pulverized form of these statements can be easily determined.

But first, it will be useful to gain some practice in interpreting a schematic representation such as 6.0.

1. Suppose a situation in which the following conditions exist: Q1P1, P and NOT R1. What (if anything) can be concluded about Q1Q from 6.0?

Referring back to the nine subsidiary propositions that 6.0 expresses, it is seen that the first one states: “If P, then if Q1P1, then Q1Q.” In this situation P and Q1P1 are given; therefore, on the basis of this first proposition it may be concluded that Q1Q is so. NOT R1 is superfluous information.

2. Given P and NOT Q1P1, what (if anything) can be concluded about Q1Q from 6.0? About Q2Q?

The answers here are that there is NOT enough information given in this situation to permit any definite conclusions about Q1Q or Q2Q. Suppose, for example, that along with P and NOT Q1P1, there is also given Q1P2. Then one may conclude that Q1Q is so, but nothing about Q2Q. The conclusion about Q1Q would be based on the second of the nine subsidiary propositions of 6.0, which states: “IF P, THEN IF Q1P2, THEN Q1Q.” The seventh, eighth

and ninth subsidiary propositions are the only ones of 6.0 that lead to some conclusion about Q2Q. Since for none of these are all of the necessary conditions fully satisfied by the facts given and assumed, no conclusion is possible about Q2Q on the basis of 6.0 and the information given in this first hypothetical. On the other hand, suppose in addition to being given P and NOT Q1P1, there is given NOT Q1P2 and NOT Q1P32. The seventh subsidiary proposition of 6.0 states: "IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P32, THEN Q2Q." Thus, on the basis of 6.0 and the information given in this second hypothetical, it may be concluded that Q2Q is so. Furthermore, it may also be concluded that Q1Q is NOT so from the fourth subsidiary proposition of 6.0 which states: "IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P32, THEN NOT Q1Q." These two hypotheticals show that, depending on what other conditions prevail along with the given information, Q1Q may or may NOT be so, and one may or may NOT be able to conclude that Q2Q is so.⁹

3. Given P, NOT Q1P1, NOT Q1P2 and NOT Q1P33, what (if anything) can be concluded about Q1Q from 6.0? About Q2Q?

The fifth subsidiary proposition of 6.0 states: "IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P33, THEN NOT Q1Q." The eighth subsidiary proposition of 6.0 states: "IF P, THEN IF NOT Q1P1 AND NOT Q1P2 AND NOT Q1P33, THEN Q2Q."

Thus, from the facts given in this situation it may be concluded from 6.0 that Q1Q is NOT so and Q2Q is so.

4. Given NOT P, NOT Q1P1 and NOT Q1P2, what (if anything) can be concluded from 6.0 about Q1Q? About Q2Q?

The answer here is that 6.0 does NOT apply; nothing can be concluded about Q1Q or Q2Q on the basis of it. It is possible that Q1Q may or may NOT be so, but whatever conclusion is reached about Q1Q will be reached on the basis of some statement other than 6.0. Similarly with Q2Q. In order to make 6.0

⁹ It should be noticed also that the antecedents of the fourth subsidiary proposition of 6.0 are the same as the antecedents of the seventh proposition; the antecedents for the fifth, the same as those for the eighth; and those for the sixth, the same as those for the ninth. Since NOT Q1Q and Q2Q arise only from these six propositions, whenever P is so; there is a relationship expressed in 6.0 between Q1Q and Q2Q such that whenever P is so, if NOT Q1Q, then Q2Q.

In schematic form this would be:

1. P
2. 1. NOT Q1Q
2. Q2Q

This, in turn, is equivalent to:

1. P
- &2. NOT Q1Q
3. Q2Q

applicable it is necessary that **P** is so, and the information given in this situation states that **P** is NOT so.

5. Given NOT **Q1P1**, **P**, NOT **R1**, NOT **R2**, **Q1P32**, **Q1P33** and **Q1P34**, what (if anything) can be concluded about **Q1Q** from 6.0? About **Q2Q**?

The third subsidiary proposition of 6.0 states: "IF **P**, THEN IF NOT **Q1P1** AND **Q1P32** AND **Q1P33** AND **Q1P34**, THEN **Q1P**." Thus, it may be concluded that **Q1Q** is so. The only subsidiary propositions of 6.0 that lead to any conclusion about **Q2Q** are the seventh, eighth and ninth propositions. For one of these to apply either **Q1P32**, **Q1P33** or **Q1P34** must NOT be so. However, according to the information given in this situation, all three of these are so. Therefore, 6.0 with the information given, does NOT lead to any conclusion about **Q2Q**. With just a little practice an analyst can easily develop skill in interpreting directly from the schematic to the situation being analyzed, without going through the intermediate steps of explicitly deriving all of the subsidiary propositions. Some statements will be so complex that they will contain many more than just nine. For most purposes it will be both unduly laborious and unnecessary to derive all of the subsidiary propositions. Therefore, it is advisable for anyone using systematic-pulverization to develop at the outset skill in directly interpreting schematic representations. The five examples given above have been included for that purpose.

From Table 3 and the schematics 6.0 and 6.01 the corresponding portions of Section 166 and the hypothetical paragraph can be represented in systematically-pulverized form. It should be particularly noticed that the statements are considerably simplified by the elimination of some unnecessary negations and the "except" clause in the final sentence.¹⁰ These negations and the "except" clause added superfluous complexity, and the same meaning is expressed in different form without them. The hypothetical paragraph in systematically-pulverized form is shown in Figure 1. The corresponding portions of Section 166 in systematically-pulverized form would be similar.

A legitimate question to raise at this point is whether the systematically-pulverized form shown here is the only possible interpretation of the intended meaning of the hypothetical paragraph. The answer to this question is: "definitely not." The interpretation given here is only one reasonable interpretation; there are certainly other reasonable ones possible for both the hypothetical paragraph and the corresponding portions of Section 166.¹¹ For example, it

¹⁰ E.g., in systematically-pulverized form "knowledge about drafting" is defined rather than "knowledge that is not about drafting." In the hypothetical paragraph it is stated that when all other requisite conditions are satisfied and the knowledge is not about drafting, the reader should not be willing to give his careful attention to such knowledge. In systematically-pulverized form it is stated that when all other requisite conditions are satisfied and the reader should give his attention, the knowledge is about drafting.

¹¹ This same thing is true of the pulverizations to be stated later of Section 162, Section 165 and Section 166 in its entirety. They represent only one interpretation of what those sections are intended to mean. These statements are, after all, highly ambiguous. It is to be expected that they will lend themselves to more than just one reasonable interpretation.

could be argued that in order to appropriately represent the intended meaning of Section 166 and the hypothetical paragraph, the relationship between Q2Q and its antecedents should be coimplication instead of merely implication as shown.¹² If this were decided to be so, then many of the answers to the five situations given above would, of course, be modified. However, the important point here is NOT whether implication or coimplication is more appropriate in this instance, but that representation in systematically-pulverized form calls at-

- 1.0 1. Knowledge will become valuable to a reader during the coming year
2. 1. 1) that reader is a lawyer
 2) &OR that knowledge is about drafting (see subsection 1.01)
 3) &OR 1. that reader is NOT a lawyer
 &2. skill of expression is achieved by that reader as a result of the information he discovers &OR acquires &OR derives from an understanding of this article's nonlegal information
 &3. the benefits of this article's nonlegal information could be used to improve even the writing &OR drafting of this article
 &4. that nonlegal information of this article in its effect upon increasing skill of expression was valuable (without regard to that particular reader's discovery &OR acquisition &OR derivation) at the time that such skill of expression was achieved by that reader
-
2. THAT READER SHOULD BE WILLING TO GIVE HIS CAREFUL ATTENTION TO SUCH KNOWLEDGE
- &3. 1. the reader is NOT a lawyer
 &2. the knowledge is NOT about drafting (see subsection 1.01)
 &3. one of the conditions of subsection 2.1.3 is NOT satisfied
-
4. THE GAIN RESULTING THEREFROM WILL BE CONSIDERED HERE TO BE A GAIN THAT REQUIRES SO LONG TO ACHIEVE THAT IT IS PROBABLY NOT WORTH THE TIME.
- 1.01 1. 1) knowledge is financially &OR professionally useful in connection with a reader's writing &OR drafting
 2) &OR the gain from the value of knowledge is sustained in the reader's writing &OR drafting
-
2. THAT KNOWLEDGE IS KNOWLEDGE ABOUT DRAFTING FOR PURPOSES OF SUBSECTION 1.0

FIG. 1.—The hypothetical paragraph

tention to such latent ambiguities. It ferrets them out. The draftsman or interpreter is forced to ask himself: "Do I draw one line (implication) or two lines (coimplication) under the antecedents of Q2Q?" Systematically-pulverizing can also remind the advocate of the large number of alternative interpretations for which arguments can usually be made from any given ambiguous statement.

¹² By attempting to systematically pulverize these statements himself, the reader can probably uncover other instances of reasonable alternative interpretations of the logical relationship prevailing between two constituent elements or combinations of elements.

It indicates that in almost all statements in a natural language, ambiguity is lurking. Systematic-pulverization helps spotlight that ambiguity.

From this systematically-pulverized representation of the hypothetical paragraph it is a relatively easy matter to answer the five questions posed on pages 6-7. Transformed into propositions in schematic form, these questions and the answers to them would appear:

- | | | | |
|--|---|--|--|
| 1. Yes | 1. P
&2. Q1P1
&3. NOT R1
<hr/> 4. Q1Q | | |
| 2. No | 1. P
&2. NOT Q1P1
<hr/> 3. 1. NOT Q1P2
&2. NOT Q1P32 &OR NOT Q1P33 &OR NOT Q1P34
3. NOT Q1Q | | |
| 3. No, Yes | 1. P
&2. NOT Q1P1
&3. NOT Q1P2
&4. NOT Q1P33
<hr/> 5. NOT Q1Q | | |
| 4. No, No, No | 1. NOT P
&2. NOT Q1P1
&3. NOT Q1P2
<hr/> 4. - - - - (about Q1Q)
&5. - - - - (about Q2Q) | | |
| 5. No, it cannot be concluded that it is probably NOT worth the time to read it. Yes | <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 1. NOT R1
 &2. NOT R2
 <hr/> 3. NOT S (i.e., NOT Q1P2) </td> <td style="width: 50%; vertical-align: top;"> 1. P
 &2. NOT Q1P1
 &3. NOT Q1P2
 &4. Q1P32
 &5. Q1P33
 &6. Q1P34
 <hr/> 7. - - - - (about Q2Q)
 &8. Q1Q </td> </tr> </table> | 1. NOT R1
&2. NOT R2
<hr/> 3. NOT S (i.e., NOT Q1P2) | 1. P
&2. NOT Q1P1
&3. NOT Q1P2
&4. Q1P32
&5. Q1P33
&6. Q1P34
<hr/> 7. - - - - (about Q2Q)
&8. Q1Q |
| 1. NOT R1
&2. NOT R2
<hr/> 3. NOT S (i.e., NOT Q1P2) | 1. P
&2. NOT Q1P1
&3. NOT Q1P2
&4. Q1P32
&5. Q1P33
&6. Q1P34
<hr/> 7. - - - - (about Q2Q)
&8. Q1Q | | |

SECTION 165

After this practice in interpreting and manipulating the logical concepts involved in systematic-pulverization, it is now appropriate to turn attention to expressing Sections 162, 165 and 166 in systematically-pulverized form. In the Internal Revenue Code of 1954 the full text of Section 165 is:

Sec. 165 Losses

(a) General rule.—There shall be allowed as a deduction any loss sustained during the taxable year and not compensated for by insurance or otherwise.

(b) Amount of deduction.—For purposes of subsection (a), the basis for determining the amount of the deduction for any loss shall be the adjusted basis provided in section 1011 for determining the loss from the sale or other disposition of property.

(c) Limitation on losses of individuals.—In the case of an individual, the deduction under subsection (a) shall be limited to—

- (1) losses incurred in a trade or business;
- (2) losses incurred in any transaction entered into for profit, though not connected with a trade or business; and

(3) losses of property not connected with a trade or business, if such losses arise from fire, storm, shipwreck or other casualty, or from theft. No loss described in this paragraph shall be allowed if, at the time of the filing of the return, such loss has been claimed for estate tax purposes in the estate tax return.

(d) Wagering losses.—Losses from wagering transactions shall be allowed only to the extent of the gains from such transactions.

(e) Theft losses.—For purposes of subsection (a), any loss arising from theft shall be treated as sustained during the taxable year in which the taxpayer discovers such loss.

(f) Capital losses.—Losses from sales or exchanges of capital assets shall be allowed only to the extent allowed in sections 1211 and 1212.

(g) Worthless securities.—

(1) General rule.—If any security which is a capital asset becomes worthless during the taxable year, the loss resulting therefrom shall, for the purposes of this subtitle, be treated as a loss from the sale or exchange, on the last day of the taxable year, of a capital asset.

(2) Security defined.—For purposes of this subsection, the term “security” means—

- (A) a share of stock in a corporation;
- (B) a right to subscribe for, or to receive, a share of stock in a corporation; or
- (C) a bond, debenture, note, or certificate, or other evidence of indebtedness, issued by a corporation or by a government or political subdivision thereof, with interest coupons or in registered form.

(3) Securities in affiliated corporation.—For purposes of paragraph (1), any security in a corporation affiliated with a taxpayer which is a domestic corporation shall not be treated as a capital asset. For purposes of the preceding sentence, a corporation shall be treated as affiliated with the taxpayer only if—

(A) at least 95 percent of each class of its stock is owned directly by the taxpayer, and

(B) more than 90 percent of the aggregate of its gross receipts for all taxable years has been from sources other than royalties, rents (except rents derived from rental from properties to employees of the corporation in the ordinary course of its operating business), dividends interest (except interest received on deferred purchase price of operating assets sold), annuities, and gains from sales or exchanges of stocks and securities.

In computing gross receipts for purposes of the preceding sentence, gross receipts from sales or exchanges of stocks and securities shall be taken into account only to the extent of gains therefrom.

(h) Cross references.—

(1) For special rule for banks with respect to worthless securities, see section 582.

(2) For disallowance of deduction for worthlessness of securities to which subsection (g) (2) (C) applies, if issued by a political party or similar organization, see section 271.

One convenient pulverization of Section 165 is into the following 29 constituent elements:

- A = SUCH LOSSES SHALL BE ALLOWED AS A DEDUCTION**
B = losses are
 1. sustained during the taxable year
 &2. NOT compensated for by insurance &OR otherwise
C = THE BASIS FOR DETERMINING THE AMOUNT OF ANY SUCH DEDUCTION SHALL BE THE ADJUSTED BASIS PROVIDED IN SECTION 1011 FOR DETERMINING THE LOSS FROM THE SALE OR OTHER DISPOSITION OF PROPERTY
D = those losses are sustained by an individual
E = those losses are incurred in trade &OR business
F = those losses are incurred in any transaction entered into for profit*
G = those losses are losses of property arising from fire &OR storm &OR shipwreck &OR other casualty &OR theft*
H = at the time of the filing of the return, those losses have NOT been claimed for estate tax purposes in the estate tax return†
I = those losses are from wagering transactions
J = SUCH LOSSES SHALL BE ALLOWED ONLY TO THE EXTENT OF GAINS FROM SUCH TRANSACTIONS
K = those losses arise from theft
L = SUCH LOSSES SHALL BE TREATED AS SUSTAINED DURING THE TAXABLE YEAR IN WHICH THE TAXPAYER DISCOVERS THE LOSSES
M = those losses are from sales &OR exchanges of capital assets
N = SUCH LOSSES SHALL BE ALLOWED ONLY TO THE EXTENT ALLOWED IN SECTIONS 1211 and 1212
O = any security (see subsection 1.01) is a capital asset
P = any security becomes worthless during the taxable year
Q = ANY LOSSES RESULTING FROM SUCH A SECURITY BECOMING WORTHLESS SHALL, FOR PURPOSES OF THIS SUBTITLE, BE TREATED AS A LOSS FROM THE SALE &OR EXCHANGE, ON THE LAST DAY OF THE TAXABLE YEAR, OF A CAPITAL ASSET
R = SUCH A THING IS A SECURITY FOR PURPOSES OF SUBSECTION 1.0-7
S = A thing is a share of stock in a corporation
T = A thing is a right to subscribe for &OR receive a share of stock in a corporation
U = A thing is a bond &OR debenture &OR note &OR certificate &OR other evidence of indebtedness
 1. issued by a corporation &OR government &OR political subdivision thereof
 &2. with interest coupons &OR in registered form

* Notice that the phrase "NOT connected with trade &OR business" is omitted. In systematically-pulverized form it is NOT needed for emphasis, and it is redundant to include it.

† Notice the change in wording and why it is appropriate when put in systematically-pulverized form.

V = SUCH A CORPORATION SHALL BE TREATED AS NOT AFFILIATED WITH THE TAXPAYER FOR PURPOSES OF SUBSECTION 1.0-7.1.2

W = less than 95 percent of each class of the corporation's stock is owned directly by the taxpayer†

X = more than 10 percent of the aggregate of the corporation's gross receipts for all taxable gains has been from the following sources combined

1. royalties

&2. rents (NOT counting those derived from rental from properties to employees of the corporation in the ordinary course of its business)

&3. dividends

&4. interest (NOT counting that received on deferred purchase price of operating assets sold)

&5. annuities

&6. gains from the sale &OR exchange of stocks &OR securities (gross receipts from these taken into account only to the extent of the gains therefrom)†

Y = those losses are sustained by other than an individual‡

Z = the deductions for those losses are NOT limited in subsections 4 &OR 5 &OR 6 &OR 7‡

A2 = any security is NOT in a corporation affiliated (see subsection 1.02) with a taxpayer which is a domestic corporation‡

B2 = any security is NOT a security issued by a political party &OR similar organization‡

C2 = the taxpayer is NOT a bank‡

From Section 165 pulverized into these constituent elements a variety of systematically-pulverized forms are possible. Discovery of the appropriate schematic involves the analyst's judgment of what expectations the section was intended to create. The interpretation suggested here turns out to be a complex schematic, but this should be expected. After all, Section 165 is a complex statement. The schematic form involves the following proposition and its two supplementary propositions:

1.0/	1.	B			
	&2.	1)	Y		
		2)	&OR	1.	D
				&2.	1)
					E
				2)	&OR F
				3)	&OR G
				&3.	H
	3.	1.	Z		
		2:	A		
		&3.	C		
	&4.	1.	I		
		2.	J		
	&5.	1.	K		
		2.	L		

† Notice the change in wording and why it is appropriate when put in systematically-pulverized form.

‡ Notice these additions, which are appropriate when Section 165 is put in systematically-pulverized form.

&6.	1.	M	
	2.	N	
&7.	1.	1.	O
		&2.	A2
		&3.	P
		&4.	B2
	&2.	C2	
	3.	Q	
<u>1.01/</u>	1.	1)	S
		2)	&OR T
		3)	&OR U
		2.	R
<u>1.02/</u>	1.	1)	W
		2)	&OR X
	2.	V	

The number of subsidiary propositions expressed in this set of propositions is quite numerous. Nevertheless, it will be useful to spell them out in some detail. Doing so will give the reader a check on this interpretation of Section 165 in systematically-pulverized form. The subsidiary propositions expressed here can be compared with the reader's intuitive judgment of what Section 165 says as it is written in the Internal Revenue Code. The subsidiary propositions in abbreviated form, using the letters A, B, C, . . . , C2 to represent the constituent elements, are as follows:

- 1.0/
1. IF B AND Y, THEN IF Z, THEN A.
 - &2. IF B AND Y, THEN IF Z, THEN C.
 - &3. IF B AND Y, THEN IF I, THEN J.
 - &4. IF B AND Y, THEN IF K, THEN L.
 - &5. IF B AND Y, THEN IF M, THEN N.
 - &6. IF B AND Y, THEN IF O AND A2 AND P AND B2 AND C2, THEN Q.
 - &7. IF B AND Y, THEN IF NOT O, THEN NOT Q.
 - &8. IF B AND Y, THEN IF NOT A2, THEN NOT Q.
 - &9. IF B AND Y, THEN IF NOT P, THEN NOT Q.
 - &10. IF B AND Y, THEN IF NOT B2, THEN NOT Q.
 - &11. IF B AND Y, THEN IF NOT C2, THEN NOT Q.
 - &12. IF B AND D AND E AND H, THEN IF Z, THEN A.
 - &13. IF B AND D AND E AND H, THEN IF Z, THEN C.
 - &14. .
 - .
 - . [Similar to 3-11 with (D AND E AND H) substituted for Y]
 - .
 - .
 - &22. .

&23. IF B AND D AND F AND H, THEN IF Z, THEN A.

&24. IF B AND D AND F AND H, THEN IF Z, THEN C.

&25. .

. [Similar to 3-11 with (D AND F AND H) substituted for Y]

&33. .

&34. IF B AND D AND G AND H, THEN IF Z, THEN A.

&35. IF B AND D AND G AND H, THEN IF Z, THEN C.

&36. .

. [Similar to 3-11 with (D AND G AND H) substituted for Y]

&50. .

1.01/

&51. IF S, THEN R.

&52. IF T, THEN R.

&53. IF U, THEN R.

&54. IF NOT S AND NOT T AND NOT U, THEN NOT R.

1.02/

&55. IF W, THEN V.

&56. IF X, THEN V.

Section 165 in systematically-pulverized form is indicated by Figure 2.

1.0/ 1. Losses are

1. sustained during the taxable year

&2. NOT compensated for by insurance &OR otherwise

&2. 1) those losses are sustained by other than an individual

2) &OR 1. those losses are sustained by an individual

&2. those losses are

1) incurred in trade &OR business

2) &OR incurred in any transaction entered into for profit

3) &OR losses of property arising from fire &OR storm &OR shipwreck &OR other casualty &OR theft

&3. at the time of the filing of the return, those losses have NOT been claimed for estate tax purposes in the estate tax return

3. 1. the deductions for those losses are NOT limited in subsections 4 &OR 5 &OR 6 &OR 7

2. SUCH LOSSES SHALL BE ALLOWED AS A DEDUCTION

&3. THE BASIS FOR DETERMINING THE AMOUNT OF ANY SUCH DEDUCTION SHALL BE THE ADJUSTED BASIS PROVIDED IN SECTION 1011 FOR DETERMINING THE LOSS FROM THE SALE OR OTHER DISPOSITION OF PROPERTY

&4. 1. those losses are from wagering transactions

FIG. 2.—Section 165

2. SUCH LOSSES SHALL BE ALLOWED ONLY TO THE EXTENT OF GAINS FROM SUCH TRANSACTIONS
- &5. 1. those losses arise from theft
2. SUCH LOSSES SHALL BE TREATED AS SUSTAINED DURING THE TAXABLE YEAR IN WHICH THE TAXPAYER DISCOVERS THE LOSSES
- &6. 1. those losses arise from sales &OR exchanges of capital assets
2. SUCH LOSSES SHALL BE ALLOWED ONLY TO THE EXTENT ALLOWED IN SECTIONS 1211 AND 1212
- &7. 1. any security (see subsection 1.01)
1. is a capital asset
- &2. is NOT in a corporation affiliated (see subsection 1.02) with a taxpayer which is a domestic corporation
- &3. becomes worthless during the taxable year
- &4. is NOT a security issued by a political party &OR similar organization
- &2. the taxpayer is NOT a bank
3. ANY LOSSES RESULTING FROM SUCH A SECURITY BECOMING WORTHLESS SHALL, FOR PURPOSES OF THIS SUBTITLE, BE TREATED AS A LOSS FROM THE SALE &OR EXCHANGE, ON THE LAST DAY OF THE TAXABLE YEAR, OF A CAPITAL ASSET.
- 1.01/ 1. A thing is
- 1) a share of stock in a corporation
- 2) &OR a right to subscribe for &OR receive a share of stock in a corporation
- 3) &OR a bond &OR debenture &OR note &OR certificate &OR other evidence of indebtedness
1. issued by a corporation &OR government &OR political subdivision thereof
- &2. with interest coupons &OR in registered form
2. SUCH A THING IS A SECURITY FOR PURPOSES OF SUBSECTION 1.0—7
- 1.02/ 1. 1) Less than 95 percent of each class of the corporation's stock is owned by the taxpayer
- 2) &OR more than 10 percent of the aggregate of the corporation's gross receipts for all taxable gains has been from the following sources combined:
1. royalties
- &2. rents (NOT counting those derived from rental from properties to employees of the corporation in the ordinary course of business)
- &3. dividends
- &4. interest (NOT counting that received on deferred purchase price of operating assets sold)
- &5. annuities
- &6. gains from the sale &OR exchange of stocks &OR securities (gross receipts from these taken into account only to the extent of the gains therefrom)
2. SUCH A CORPORATION SHALL BE TREATED AS NOT AFFILIATED WITH THE TAXPAYER FOR PURPOSES OF SUBSECTION 1.0—7.1.2
- CROSS REFERENCES:
1. For special rule for banks with respect to worthless securities, see section 582.
2. For disallowance of deduction for worthlessness of securities to which subsection 1.01—1.3 applies, if issued by a political party or similar organization, see section 271.

FIG. 2.—Section 165—Continued

It is fairly easy to develop skill in reading all of the subsidiary propositions directly from this representation in systematically-pulverized form. A few ex-

amples will be given here, and the reader can practice by expressing the other subsidiary propositions in ordinary prose.

1. IF losses are sustained during the taxable year AND are NOT compensated for by insurance &OR otherwise, AND those losses are sustained by other than an individual;
THEN IF the deductions for those losses are NOT limited in subsections 4 &OR 5 &OR 6 &OR 7,
THEN such losses shall be allowed as a deduction.
8. IF losses are sustained during the taxable year AND are NOT compensated for by insurance &OR otherwise, AND those losses are sustained by other than an individual,
THEN IF a security is in a corporation affiliated (see subsection 1.02) with a taxpayer which is a domestic corporation,
THEN any such losses resulting from such a security becoming worthless shall, for purposes of this subtitle, NOT be treated as a loss from the sale &OR exchange, on the last day of the taxable year, of a capital asset.
49. IF less than 95 percent of each class of the corporation's stock is owned directly by the taxpayer,
THEN such a corporation shall be treated as NOT affiliated with the taxpayer for purposes of subsection 1.0—7.1.2.

SECTION 166

The systematic-pulverization of this section of the tax code is done in a similar manner. Although it is shorter in length than the previous section, in some respects Section 166 turns out to be more complex than Section 165. The schematic representation of Section 166 will be constructed after indicating the complete text of the section and how it is pulverized. The Internal Revenue Code of 1954 states:

Sec. 166. Bad debts

(a) General rule.—

(1) Wholly worthless debts.—There shall be allowed as a deduction any debt which becomes worthless within the taxable year.

(2) Partially worthless debts.—When satisfied that a debt is recoverable only in part, the Secretary or his delegate may allow such debt, in an amount not in excess of the part charged off within the taxable year, as a deduction.

(b) Amount of deduction.—For purposes of subsection (a), the basis for determining the amount of the deduction for any bad debt shall be the adjusted basis provided in section 1011 for determining the loss from the sale or other disposition of property.

(c) Reserve for bad debts.—In lieu of any deduction under subsection (a), there shall be allowed (in the discretion of the Secretary or his delegate) a deduction for a reasonable addition to a reserve for bad debts.

(d) Nonbusiness debts.—

(1) General rule.—In the case of a taxpayer other than a corporation—

(A) subsections (a) and (c) shall not apply to any non-business debt; and

(B) where any nonbusiness debt becomes worthless within the taxable year,

the loss resulting therefrom shall be considered a loss from the sale or exchange, during the taxable year, of a capital asset held for not more than 6 months.

(2) Nonbusiness debt defined.—For purposes of paragraphs (1), the term “non-business debt” means a debt other than—

(A) a debt created or acquired (as the case may be) in connection with a taxpayer’s trade or business; or

(B) a debt the loss from the worthlessness of which is incurred in the taxpayer’s trade or business.

(e) Worthless securities.—This section shall not apply to a debt which is evidenced by a security as defined in section 165 (g) (2) (C).

(f) Guarantor of certain noncorporate obligations.—A payment by the taxpayer (other than a corporation) in discharge of part or all of his obligation as a guarantor, endorser, or indemnitor of a noncorporate obligation the proceeds of which were used in the trade or business of the borrower shall be treated as a debt becoming worthless within such taxable year for purposes of this section (except that subsection (d) shall not apply), but only if the obligation of the borrower to the person to whom such payment was made was worthless (without regard to such guaranty, endorsement, or indemnity) at the time of such payment.

(g) Cross references.—

(1) For disallowance of deduction for worthlessness of debts owed by political parties and similar organizations, see section 271.

(2) For special rule for banks with respect to worthless securities, see section 582.

(3) For special rule for bad debt reserves of certain mutual savings banks, domestic building and loan associations, and cooperative banks, see section 593.

A convenient pulverization of this is into the following 26 constituent elements:

A = THAT DEBT SHALL BE ALLOWED AS A DEDUCTION

B = the debt becomes wholly worthless within the taxable year

C = the debt becomes partially worthless within the taxable year (the Secretary &OR his delegate are satisfied that the debt is recoverable only in part)

D = THERE SHALL BE ALLOWED A DEDUCTION FOR THAT DEBT, IN AMOUNT NOT IN EXCESS OF THE PART CHARGED OFF WITHIN THE TAXABLE YEAR

E = THE BASIS FOR DETERMINING THE AMOUNT OF ANY SUCH DEDUCTION FOR ANY SUCH BAD DEBT SHALL BE THE ADJUSTED BASIS PROVIDED IN SECTION 1011 FOR DETERMINING THE LOSS FROM THE SALE OR OTHER DISPOSITION OF PROPERTY

F = the Secretary &OR his delegate approve

G = THERE SHALL BE ALLOWED A DEDUCTION FOR A REASONABLE ADDITION TO A RESERVE FUND FOR BAD DEBTS

H = the taxpayer is a corporation

I = the debt is a business debt [see subsection 1.0(1&2)1]

J = the debt becomes worthless within the taxable year

K = THE LOSS RESULTING THEREFROM SHALL BE CONSIDERED A LOSS FROM THE SALE &OR EXCHANGE, DURING THE TAXABLE

YEAR, OF A CAPITAL ASSET HELD FOR NOT MORE THAN SIX MONTHS

L = THAT DEBT IS A BUSINESS DEBT FOR PURPOSES OF SUBSECTIONS 1.01 AND 1.02

M = A debt is created &OR acquired in connection with a taxpayer's trade &OR business

N = the loss from the worthlessness of a debt is incurred in the taxpayer's trade &OR business

O = SUBSECTIONS 1.01 AND 1.02 SHALL APPLY

P = a debt is NOT evidenced by a security as defined in section 165—1.01

Q = a payment by that taxpayer is made in discharge of part OR all of his obligation as a guarantor &OR endorser &OR indemnitor of a noncorporate obligation

R = the proceeds of that noncorporate obligation were used in the trade &OR business of the borrower

S = that noncorporate obligation (of the borrower to the person to whom the payment was made) was worthless (without regards to such guaranty &OR endorsement &OR indemnity) at the time of that payment

T = the debtor is NOT a political party &OR similar organization

U = the taxpayer is NOT a bank

V = the taxpayer is NOT a

1) mutual savings bank

2) &OR domestic building & loan association

3) &OR cooperative bank

W = subsection 1.0 makes this section applicable

X = SUBSECTION 1.011 SHALL APPLY

Y = subsection 1.01 makes this subsection applicable

Z = one of the conditions of subsection 1.01—2.3 is NOT satisfied

A variety of ways of logically relating these constituent elements will probably all represent reasonable interpretations of Section 166. The interpretation suggested here is made up of five propositions—one main and four supplementary propositions—that can be represented as follows:

1.0/ 1. T

&2. U

3. 1. P

2. O

1.01/

1. W

&2. 1) H

2) &OR I

3) &OR 1. NOT H

&2. Q

&3. R

&4. S

3. X

1.011/ 1. Y
 2. 1. B
 2. 1) A
 2) &OR 1. F
 2. G
 &3. 1. C
 &2. F
 3. 1- D
 OR
 2- G
 &4. 1. V
 2. E

1.02/ 1. W
 &2. J
 &3. NOT H
 &4. NOT I
 &5. Z
 6. K

 1.0(1&2)1 1. 1) M
 2) & OR N
 2. L

In systematically-pulverized form Section 166 would be written as shown in Figure 3.

1.0/ 1. The debtor is NOT a political party &OR similar organization
 2. the taxpayer is NOT a bank
 3. 1. a debt is NOT evidenced by a security as defined in section 165—1.01
 2. SUBSECTIONS 1.01 and 1.02 SHALL APPLY

1.01/ 1. subsection 1.0 makes this subsection applicable
 &2. 1) the taxpayer is a corporation
 2) &OR the debt is a business debt [see subsection 1.0(1&2)1]
 3) &OR 1. the taxpayer is NOT a corporation
 &2. a payment by that taxpayer is made in discharge of part OR all
 of his obligation as a guarantor &OR endorser &OR indemnitor
 of a noncorporate obligation
 &3. the proceeds of that noncorporate obligation were used in the
 trade &OR business of the borrower
 &4. that noncorporate obligation (of the borrower to the person to
 whom the payment was made) was worthless (without regards
 to such guaranty &OR endorsement &OR indemnity) at the
 time of that payment

3. SUBSECTION 1.011 SHALL APPLY

1.011/ 1. subsection 1.01 makes this subsection applicable
 2. 1. the debt becomes wholly worthless within the taxable year
 2. 1) THAT DEBT SHALL BE ALLOWED AS A DE-
 DUCTION

FIG. 3.—Section 166

- 2) &OR 1. the Secretary &OR his delegate shall approve
2. THERE SHALL BE ALLOWED A DEDUCTION FOR A REASONABLE ADDITION TO A RESERVE FUND FOR BAD DEBTS
- &3. 1. the debt becomes partially worthless within the taxable year (the Secretary &OR his delegate are satisfied that the debt is recoverable only in part)
- &2. the Secretary &OR his delegate approve
3. 1- THERE SHALL BE ALLOWED A DEDUCTION FOR THAT DEBT, IN AMOUNT NOT IN EXCESS OF THE PART CHARGED OFF WITHIN THE TAXABLE YEAR
- OR
- 2- THERE SHALL BE ALLOWED A DEDUCTION FOR A REASONABLE ADDITION TO A RESERVE FUND FOR BAD DEBTS
- &4. 1. the taxpayer is NOT a
- 1) mutual savings bank
- 2) &OR domestic building & loan association
- 3) &OR cooperative bank
2. THE BASIS FOR DETERMINING THE AMOUNT OF ANY SUCH DEDUCTION FOR ANY SUCH BAD DEBT SHALL BE THE ADJUSTED BASIS PROVIDED IN SECTION 1011 FOR DETERMINING THE LOSS FROM THE SALE OR OTHER DISPOSITION OF PROPERTY
- 1.02/ 1. subsection 1.0 makes this subsection applicable
- &2. the debt becomes worthless within the taxable year
- &3. the taxpayer is NOT a corporation
- &4. that debt is NOT a business debt [see subsection 1.0(1&2)1]
- &5. one of the conditions of subsection 1.01—2.3 is NOT satisfied
6. THE LOSS RESULTING THEREFROM SHALL BE CONSIDERED A LOSS FROM THE SALE &OR EXCHANGE, DURING THE TAXABLE YEAR, OF A CAPITAL ASSET HELD FOR NOT MORE THAN SIX MONTHS
- 1.0(1&2)1/ 1. 1) A debt is created &OR acquired in connection with a taxpayer's trade &OR business
- 2) &OR the loss from the worthlessness of a debt is incurred in the taxpayer's trade &OR business
2. THAT DEBT IS A BUSINESS DEBT FOR PURPOSES OF SUBSECTIONS 1.01 AND 1.02

CROSS REFERENCES:

1. For disallowance of deduction for worthlessness of debts owed by political parties &OR similar organization, see section 271.
2. For special rule for banks with respect to worthless securities, see section 582.
3. For special rule for bad debt reserves of certain mutual savings banks &OR domestic building & loan associations &OR cooperative banks, see section 593.

FIG. 3.—Section 166—*Continued*

SECTION 162

The full text of the expense section of the tax code states:

Sec. 162. Trade or business expense

(a) In general.—There shall be allowed as a deduction all the ordinary and neces-

sary expenses paid or incurred during the taxable year in carrying on any trade or business, including—

(1) a reasonable allowance for salaries or other compensation for personal services actually rendered;

(2) traveling expenses (including the entire amount expended for meals and lodging) while away from home in the pursuit of a trade or business; and

(3) rentals or other payments required to be made as a condition to the continued use or possession, for purposes of the trade or business, of property to which the taxpayer has not taken or is not taking title or in which he has no equity.

For purposes of the preceding sentence, the place of residence of a Member of Congress (including any Delegate and Resident Commissioner) within the State, congressional district, Territory or possession which he represents in Congress shall be considered his home, but amounts expended by such Members within each taxable year for living expenses shall not be deductible for income tax purposes in excess of \$3,000.

(b) Charitable contributions and gifts excepted.—No deduction shall be allowed under subsection (a) for any contribution or gift which would be allowable as a deduction under Section 170 were it not for the percentage limitations, or the requirements as to the time of payment, set forth in such section.¹³

¹³ Section 162 illustrates rather vividly how in a natural language the little words “and” and “or” are used to indicate a wide variety of logical relationships. Just which logical relationship the use of one of these words is intended to indicate in a particular statement may or may not be clear from an examination of the statement in context. The degree of clarity will vary from context to context. Frequently these words connect classes, rather than propositions, but such usage can readily be transformed into logical relationships between propositions. Our impression of what logical relationships between propositions the words “and” and “or” were intended to indicate as used in Section 162 is as follows:

The word “or” used to indicate *inclusive disjunction* (A or B or both)

“paid or incurred”

(paid or incurred or both)

“trade or business”

(trade or business or both)

“salaries or other compensation”

(salaries or other compensation or both)

“rentals or other payments”

(rentals or other payments or both)

“use or possession”

(use or possession or both)

“percentage limitations or the requirements”

(percentage limitations or the requirements or both)

The word “and” used to indicate *inclusive disjunction*

“meals and lodging”

(meals or lodging or both)

“traveling expenses . . . and rentals”

(traveling expenses . . . or rentals or both)

The word “or” used to indicate *exclusive disjunction* (A or B, but NOT both)

“Territory or possession”

(Territory or possession, but NOT both)

[Footnote 13 continued on following page]

(c) Cross reference.—

For special rule relating to expenses in connection with subdividing real property for sale, see section 1237.

A convenient pulverization of section 162 is into the following twelve constituent elements:

- A = An ordinary & necessary expense (see subsection 1.01) is paid &OR incurred during the taxable year in carrying on any trade &OR business
 B = the expense is NOT an item for which deduction is disallowed by subsection 1.02
 C = THERE SHALL BE ALLOWED A DEDUCTION FOR SUCH AN EXPENSE
 D = an item is a reasonable allowance for
 1) salaries
 2) &OR other compensation
 for personal services actually rendered¹⁴

The word "and" used to indicate *exclusive disjunction*

"Delegate and Resident Commissioner"

(Delegate or Resident Commissioner, but NOT both)

The word "or" used to indicate *conjunction* (A and B)

- "has not taken or is not taking"
 (has not taken and is not taking)

"... title or in which he has no equity"
 (... title and in which he has no equity)

The word "and" used to indicate *conjunction*

"ordinary and necessary expenses"
 (ordinary and necessary expenses)

The word "or" used ambiguously to indicate *coimplication* or *exclusive disjunction*

"contribution or gift"
 (contribution, that is to say, gift)
 or

(contribution or gift or both)

The word "and" used ambiguously to indicate *coimplication* or *exclusive disjunction*

"contributions and gifts"
 (contributions, that is to say, gifts)
 or

(contributions or gifts or both)

The symbolic logician would prefer to use a separate symbol to indicate each of these relationships, each symbol having only one logical meaning. Then he would not have to pause, reflect and figure out from the context in which the symbol is used just what logical relationship it was intended to indicate. In this manner he expedites thought and makes it more precise. Systematic-pulverization achieves these same objectives in a manner that avoids notation likely to be unfamiliar to lawyers.

¹⁴ This clause illustrates a common type of ambiguity that a draftsman could easily avoid by using systematic-pulverization. This is an ambiguity of reference. When a statement contains this ambiguity, the logicians call the statement amphibolous. In Section 162 the ambiguity of reference involves the phrase "for personal services actually rendered." Which is the phrase intended to refer to:

1- both "salaries" and "other compensation"
 OR

2- only "other compensation"?

The first alternative would allow a reasonable deduction for salaries as ordinary and necessary

- E** = an item is a travel expense (including the entire amount expended for meals &OR lodging)
1. while away from home (see subsection 1.011)
 - &2. in the pursuit of trade &OR business
- F** = an item is rentals &OR other payments required to be made as a condition to the continued use &OR possession, for purposes of trade &OR business, of property
1. to which the taxpayer
 1. has NOT taken
 - &2. is NOT taking
 title
 - &2. in which he has NO equity
- G** = SUCH AN ITEM IS AN ORDINARY & NECESSARY EXPENSE OF CARRYING ON A TRADE &OR BUSINESS
- H** = a person is a Member of Congress (including any Delegate OR Resident Commissioner)
- I** = FOR PURPOSES OF SUBSECTION 1.01 THE PLACE OF RESIDENCE OF SUCH A PERSON WITHIN THE STATE OR CONGRESSIONAL DISTRICT OR TERRITORY OR POSSESSION WHICH HE REPRESENTS IN CONGRESS SHALL BE CONSIDERED HIS HOME
- J** = AMOUNTS EXPENDED BY SUCH PERSONS WITHIN EACH TAXABLE YEAR FOR LIVING EXPENSES SHALL NOT BE DEDUCTIBLE FOR INCOME TAX PURPOSES IN EXCESS OF \$3,000
- K** = an item is a contribution &OR gift that is NOT allowed as a deduction under Section 170 because of the
- 1) percentage limitations
 - 2) &OR requirements as to the time of payment
- set forth in such Section
- L** = NO DEDUCTION SHALL BE ALLOWED UNDER SUBSECTION 1.0 FOR SUCH AN ITEM

expenses only when those salaries were "for personal services actually rendered." On the other hand, the second alternative would allow a reasonable deduction for salaries as ordinary and necessary expenses whether or not those salaries were "for personal services actually rendered." In systematically-pulverized form, just which alternative was intended could be made absolutely clear. The first alternative would be expressed:

1. a reasonable allowance for
 - 1) salaries
 - 2) &OR other compensation
 for personal services actually rendered

The second alternative would be expressed:

2. a reasonable allowance for
 - 1) salaries
 - 2) &OR other compensation for personal services actually rendered

And, in the unlikely event that the draftsman wished to leave this ambiguous, he would even be able to do that in systematically-pulverized form. To indicate an intentional ambiguity it would be written:

3. a reasonable allowance for salaries &OR other compensation for personal services actually rendered.

The interpretation suggested here of the logical structure of Section 162 is indicated in the following schematic:

<u>1.0/</u>	1.	A	(see 1.01)
	&2.	B	(see 1.02)
	3.	C	
<hr style="width: 100%;"/>			
<u>1.01/</u>	1.	
	1)	D	
	2)	&OR	E (see 1.011)
	3)	&OR	F
	2.	G	
<hr style="width: 100%;"/>			
<u>1.011/</u>	1.	H	
	2.	I	
	&3.	J	
<hr style="width: 100%;"/>			
<u>1.02/</u>	1.	K	
	2.	L	

In systematically-pulverized form Section 162 would be written as shown in Figure 4.

In concluding this systematic-pulverization of Sections 162, 165 and 166 it is worth mentioning that such a system of drafting may have implications of considerable significance. One of the important advantages of drafting a statute in systematically-pulverized form is that the logical relationships between its constituent elements are clearly expressed and easily understood. This means that once the facts of a case have been characterized in terms of the constituent elements of a given statutory section, it requires a minimum of mental effort to figure out what effect that section has upon those facts. In fact, this aspect of the reasoning involved in applying a statute to a set of facts is so routine that it can be done entirely by a computing machine.¹⁵ This would free the mind of the lawyer to concentrate on those aspects of the problem that actually require human thinking. The most important aspect of decision making, and the one that actually requires human judgment and thinking, is the characterization of the facts in terms of the constituent elements of a statute or a common law rule. However, when complex statutes are drafted in the customary form, a great deal of the lawyer's mental energy must be devoted to figuring out the logical relationships prevailing between the various constituent elements of the statute. And this is an unnecessary sidetracking of his focus of attention from the important aspect of the problem. Also, when a statement is drafted in the usual way, the probability of inadvertently incorporating ambiguity into it is greater

¹⁵ The logical relationships dealt with in systematic-pulverization are components of what the symbolic logicians call "propositional calculus." For a simple method of expressing propositional calculus so that it can be handled by a digital computer, see Ledley, *Mathematical Foundations and Computational Methods for a Digital Logic Machine*, 2 *J. Operations Research Society of America* 249 (1954). See also, unpublished paper of Richard Helgeson at Yale Law School, *A Preliminary Design for Coding Statutes to Punched Cards* (1957).

than when that statement is drafted in systematically-pulverized form. Thus, the amount of attention wasted may be even further increased. Systematic-pulverization can go a long way in helping to simplify complex statutes like the Internal Revenue Code. And is there any toiler in the vineyard of the tax code who would not welcome such simplification?

- 1.0/ 1. An ordinary & necessary expense (see subsection 1.01) is paid &OR incurred during the taxable year in carrying on any trade &OR business
&2. the expense is NOT an item for which deduction is disallowed by subsection 1.02

3. THERE SHALL BE ALLOWED A DEDUCTION FOR SUCH AN EXPENSE

1.01 1. an item is

- 1) a reasonable allowance for
 - 1) salaries
 - 2) &OR other compensation
 for personal services actually rendered
- 2, &OR a travel expense (including the entire amount expended for meals &OR lodging)
 1. while away from home (see subsection 1.011)
 - &2. in the pursuit of trade &OR business
- 3, &OR rentals &OR other payments required to be made as a condition to the continued use &OR possession, for purposes of trade &OR business, of property
 1. to which the taxpayer
 1. has NOT taken
 - &2. is NOT taking
 title
 - &2. in which he has NO equity

2. SUCH AN ITEM IS AN ORDINARY & NECESSARY EXPENSE OF CARRYING ON A TRADE &OR BUSINESS

- 1.011/ 1. a person is a Member of Congress (including any Delegate OR Resident Commissioner)

2. FOR PURPOSES OF SUBSECTION 1.01 THE PLACE OF RESIDENCE OF SUCH A PERSON WITHIN THE STATE OR CONGRESSIONAL DISTRICT OR TERRITORY OR POSSESSION WHICH HE REPRESENTS IN CONGRESS SHALL BE CONSIDERED HIS HOME

&3. AMOUNT EXPENDED BY SUCH PERSONS WITHIN EACH TAXABLE YEAR FOR LIVING EXPENSES SHALL NOT BE DEDUCTIBLE FOR INCOME TAX PURPOSES IN EXCESS OF \$3,000

- 1.02/ 1. an item is a contribution &OR gift that is NOT allowed as a deduction under Section 170 because of the
- 1) percentage limitations
 - 2) &OR requirements as to the time of payment
- set forth in such Section

2. NO DEDUCTION SHALL BE ALLOWED UNDER SUBSECTION 1.0 FOR SUCH AN ITEM

CROSS REFERENCE:

1. For special rule relating to expenses in connection with subdividing real property for sale, see Section 1237.

FIG. 4.—Section 162

II. TOWARD A MORE SCIENTIFIC THEORY OF INTERPRETATION

Turning now to the difficult problem of assigning the appropriate meaning to a word or phrase, often it will be apparent from the statement itself just which logical connection is intended by the words in the statement. However, when a doubtful situation is encountered some criteria are needed for deciding between the various possible alternative interpretations. Making such decisions is a prerequisite to transforming statements into systematically-pulverized form. The development of criteria for making such decisions will also have a useful by-product. Criteria for deciding what syntactical relationship is intended by the "logical" words in a statement will also be useful in the more difficult problem of assigning the appropriate meaning to "descriptive" words or phrases. The solution of the semantic problem with descriptive words is a more artful and less certain process than discovering the appropriate logical relationships. There is more flexibility in interpreting descriptive words—more room for dispute. However, it is suggested that even this process can be polished up and made more predictable if an appropriate theoretical framework is developed. That is what is attempted in this section.

A theory of interpretation that embodies two of the important characteristics of scientific method is suggested.¹⁶ These characteristics are:

1. the systematic character of the procedure
- &2. the tentativeness of any conclusions reached.¹⁷

Underlying this suggested theory and emphasizing its systematic and tentative characteristics, is a set of presuppositions that it is, perhaps, useful to set forth explicitly.¹⁸ These are:

1. that interpretation is always necessary (it is begging the question to assert that it is not allowable to interpret what has no need of interpretation);
2. that the task of an interpreter is to ascertain the common expectations that parties created in each other, and when such expectations are shadowy, to apply established community policies to resolve controversy (the prior and subsequent conduct of all participants offers relevant indicia of common expectations);
3. that the function of criteria (canons) of interpretation is to point to factors in the total context which indicate common expectations and community policies (such principles of interpretation do not justify the decision reached; they are merely convenient reminders of the significant factors that should be taken into account in reaching a decision);
4. that the alleged "ordinary and natural meaning" of words are at best only presumptive indications of how words may have been used in a particular context;
5. that words should always be interpreted in the total context in which they are used;
6. that an adequate theory of interpretation includes both criteria of interpretation

¹⁶ The usefulness of this theory of interpretation is illustrated in Part III below with respect to the phrase "trade or business" as it appears in several sections of the tax code.

¹⁷ For discussion of the tentative nature of scientific theories and the systematic character of scientific method, see Copi, *Introduction to Logic* 385-411 (1953).

¹⁸ Discussion of these is included in a forthcoming article by Professor Myres McDougal.

by broad underlying policy and major purpose as well as criteria of restrictive interpretation.

The approach to interpretation suggested here is similar to a description of scientific method by Professor Henry Margenau, which has been represented graphically by Nicholas Smith.¹⁹ Figure 5 is a slightly modified version of this. In this representation O_1, O_2 etc. are observations; P_1, P_2 etc. are postulated constructs. The arrows represent inconsistencies uncovered by new observations, which require revisions of the scientific postulates. P_5 represents a construct of higher abstraction. According to this view of scientific method, a series of observations is first made as indicated by O_1 through O_4 . On the basis of these observations certain postulates P_1 and P_2 are made concerning the nature of the physical

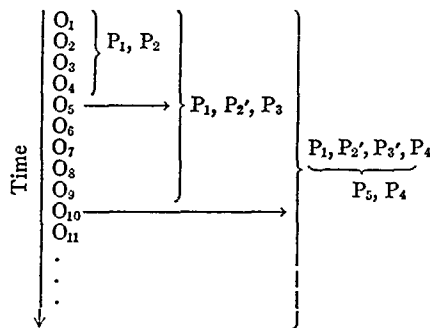


FIG. 5.—Scientific method

world. This set of postulates, together with the rules for interactions between them, constitute the scientific theory. This theory will be part of the perceptual framework within which future observations will be made. Sooner or later a new observation, indicated by O_5 , is made that gives results inconsistent with the preceding postulates. Because of this, it may be necessary, not only to re-adjust some of the previous postulates (P_2 to P_2'), but also to add new ones (P_3) in order to restore consistency in an ever-widening area of observation. This produces the revised set of postulates P_1, P_2' and P_3 . Figure 5 indicates that O_6, O_7, O_8 and O_9 can be predicted by the revised theory, because they are consistent with it. However, sooner or later a new observation, as indicated by O_{10} , again uncovers an inconsistency, which requires another revision of the theory to restore consistency. Occasionally the theory itself gets so cumbersome in the number of postulates and the complexity of the relations between them that more general postulates are sought that reduce the number of postulates in the theory, and thus, simplify it (replacement of P_1, P_2' and P_3' by P_5 in Figure 5).

¹⁹ Smith, *A Calculus for Ethics: A Theory of the Structure of Value*, 2 Behavioral Science 140 (April, 1956). The explanation of Figure 5 given here closely parallels Smith's discussion of it.

Such a description of scientific method clearly reveals the characteristics that make science so extremely undogmatic. Not only are all conclusions tentatively held, ready to be modified in light of contradictory evidence in a broader context, but systematic efforts are continuously made to broaden the context within which conclusions are drawn. It is suggested that a similar explicit approach would be appropriate for interpreting the meaning of words in legal contexts. Figure 6 represents this suggested procedure. In this representation O_1, O_2 etc. again are observations; the entire set M_1, M_2, \dots, M_n is the total meaning attributed to the word or phrase in question, each M_x representing one component of that total meaning. The arrow represents a *reasonably clear indication* that there should be a shift in meaning. Interpretation of a word or phrase by this method would proceed in a systematic, step-by-step procedure as follows:

Step 1

The word or phrase would first be examined alone (O_1), then in the context of the clause (O_2), and finally, in the context of the entire sentence (O_3) in

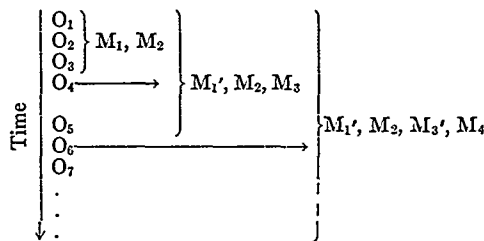


FIG. 6.—A method of interpretation

which it appears before any assignment of meaning is made. This is the appropriate stage to consult a dictionary for suggestions of various meanings of the words. A presumption is raised here that the word or phrase means what seems most appropriate in the context of that sentence (in Figure 6, shown as M_1 and M_2). This, however, should be regarded as a tentative conclusion about the meaning to be assigned to the word or phrase in question. It may be rebutted in light of further evidence.

Step 2

Next, examine the entire paragraph in which the questionable phrase appears (O_4). The decision-maker interpreting the instrument should make an explicit judgment about whether the context of the whole paragraph shows any *reasonably clear indication* that the initial meaning assigned to the phrase in STEP 1 should be modified. If there is such indication, then a different, but still tentative, meaning should be assigned to replace the meaning initially assigned—the meaning assigned in STEP 2 being that which seems most appropriate in the wider context of the whole paragraph. If there is no such reasonably clear indication, then the meaning assigned in STEP 1 should be re-

tained as the STEP 2 meaning. Figure 6 indicates that O_4 turns up some reasonably clear indication that M_1 and M_2 should be modified to become M_1' , M_2 and M_3 . Notice that in both of the first two steps as in all of the succeeding steps, the decision-maker is required to make an explicit judgment about the meaning of the phrase in question. At each stage as the context is widened, he is required to judge whether the tentative meaning assigned to the questionable phrase when looked at it in a narrower context should be modified when viewed in a broader context. It might be worthwhile, for purposes of guiding others in the future, to encourage decision-makers to make these explicit judgments available in their written opinions.

Step 3

Move next to a still wider chunk of context. What is the next appropriate chunk of context will vary depending on the instrument being interpreted. For example, in interpreting a statute the appropriate sequence of expanding contexts might be:

1. A
2. A & B
3. A & B & C
4. A & B & C & D
5. A & B & C & D & E
6. A & B & C & D & E & F
7. A & B & C & D & E & F & G

where

- A = subsection
- B = other relevant subsections of the entire section
- C = other relevant sections of the entire subtitle
- D = other relevant subtitles of the entire title
- E = other relevant titles of the entire statute
- F = other relevant statutes
- G = the relevant parts of the constitution

Whatever is the next appropriate chunk of context, the decision-maker should make an explicit judgment whether in light of this wider context there is any reasonably clear indication that the meaning assigned in STEP 2 should be modified. If there is such indication, the STEP 2 meaning should be appropriately modified to become the STEP 3 meaning; if NOT, then the STEP 2 meaning should be retained. In Figure 6 the meaning assigned on the basis of O_1 , O_2 , O_3 and O_4 is retained for O_5 .

Step 4

Move next to an even wider context—to the total situation in which the instrument being interpreted was created. This refers to the entire context immediately preceding (the relevant wording of the relevant instruments) plus something more—for example, something more like the legislative history of a statute or the circumstances involved in the making of a contract, including the customary meaning which the words in question have been given in such con-

texts. Again at this stage, repeat the process of making an explicit judgment and modifying the assigned meaning if it seems appropriate to do so. Figure 6 indicates that O_6 discloses a reasonably clear indication that the STEP 3 meaning (M_1, M_2, M_3) should be modified to become M_1', M_2, M_3, M_4 .

Step 5

Finally, in deciding what meaning should be given to a questionable phrase, the decision-maker should look to the total context in which the decision is being made. This refers to the context immediately preceding (the total situation in which the instrument being interpreted is created) plus something more, the something more being the public policy that the decision-maker is seeking to implement in making such a decision. This widest context of all should be examined in the same way that preceding narrower contexts were, to see if there is any reasonably clear indication that the tentative meaning assigned previously should be modified; and modifying it appropriately if there is such indication.

In one respect this suggested method of interpretation is different from scientific method. The expectation in scientific investigation is that eventually an observation will be made that will require modification of the set of postulated constructs, whereas in the suggested method of interpretation it is probable that in many instances the meaning appropriate after examining the broadest context will be the same meaning as the one initially assigned in the narrowest context.

If interpretation were handled in the manner suggested here, then in a situation where one context indicates that a different meaning should be assigned to a word or phrase from the meaning assigned from the perspective of another context, it would be the broader²⁰ of the two contexts that would control. Thus, such a procedure would provide criteria for resolving disputes arising over the meaning of words or phrases. Attention would be focused upon whether there is any reasonably clear indication in the broader context that the meaning tentatively assigned in the narrower context should be modified, rather than upon arguments about whether the meaning of words or the underlying policy should control. Whether or not there is such a *reasonably clear indication* would depend upon how clearly the meaning is indicated in the constituent parts of each context and how much broader the one context is than the other. Thus, a judgment on how much weight to put on literal wording versus policy considerations would still be necessary, but it would no longer be the only evaluation required. The appropriate meaning in all the subcontexts in the total context

²⁰ The notion of breadth (or width) is being used in the following sense:

IF context A includes context B AND context A includes something more, THEN context A is broader than context B.

Although for some purposes this would only be a partial definition, it is adequate here because all of the contexts that it may be necessary to decide between are such that one is included in the other.

would be considered, evaluated and would influence the ultimate determination of what the word or phrase in question should be held to mean. Hence, although the suggested method of interpretation merely makes systematic and explicit what decision-makers already do to a great extent on an intuitive basis, it can nevertheless help focus attention on all the factors that should be considered and help provide a means of reconciling the policy-oriented approach to interpretation with the strict construction approach. Since it is the total context that ultimately controls, the meaning of a word or phrase will be determined by (1) public policy in conjunction with (2) the total situation in which the instrument being interpreted was created (which includes the relevant wording of all the relevant instruments). Thus, although the context where public policy is considered will ultimately control, the meanings of words determined in narrower contexts will not be without powerful influence. Policy goals that are extremely hazy, for example, would not be sufficient to modify clear statements of meaning established in narrower contexts, nor would a court have free rein to override a clear legislative mandate.²¹ What is required is a reasonably clear indication that another meaning is appropriate. And of course, what constitutes a "reasonably clear indication" is for the decision-maker to decide. This would guarantee desirable flexibility for such a system of interpretation, while at the same time an accumulating body of cases specifying what is and what is not considered to be a "reasonably clear indication" would enhance predictability for those interested.

In operating by means of such a system of interpretation it might well turn out that it is appropriate to treat the same phrase as having a different meaning in one section of a statute from what it has in another section; and further, that a phrase that seems clearly to mean one thing when viewed in isolation turns out to mean something quite different when viewed in a wider context. This, of course, is true of other approaches to interpretation also. The only virtue claimed for the approach suggested here is that it is systematic and made explicit; and to the extent that this helps to make the decision-maker aware of just where he is exercising judgment, it is more likely to disclose a situation where it is reasonable to give two instances of the same term two different meanings. It should be clear that the suggested approach to interpretation does not replace human judgment. It only systematizes it. But the significance of systematizing judgment should not be underrated. It seems likely to us that appropriate interpretation by such technique can both help to minimize litigation and help to avoid the necessity of clarifying legislation. A good example of what can happen when interpretation is not done contextually is furnished by the meaning that has been given by the courts to the phrase "trade or business" in several sections of the tax code.

²¹ There are, however, situations where clear legislative mandates conflict with clear statements of public policy embodied in the constitution. In such instances the courts are certainly empowered to thwart a clear legislative intent—and should do so!

III. "TRADE OR BUSINESS" IN THE INTERNAL REVENUE CODE

The phrase "trade or business" is used in more than sixty sections of the Internal Revenue Code. These words which are deceptively simple on their face, have been given a variety of meanings by the courts during the past forty years. A fragmentary approach to interpretation in the expense, loss and bad debt sections which did not consider the total context in which the phrase appeared, has resulted in confusion that, in turn, produced an impressive amount of litigation and ultimately required legislative intervention. This unhappy series of events was due primarily to the failure of the Commissioner and the courts to infuse a policy-content into this troublesome phrase, which is used throughout the Code in a variety of contexts and for a multitude of purposes. With rare exceptions the reported opinions indicate that judicial and administrative decision makers seem to assume that there is a universal and interchangeable meaning of "trade or business" that can be assigned to the phrase wherever it occurs. They have applied a definition of this phrase, arrived at for the purpose of one section, to other sections with little evidence that the purpose and policy underlying these sections were considered. This judicial and administrative indifference to legislative history and policy as an important part of the total context is well illustrated by the checkered history of the phrase "trade or business" in the expense, loss and bad debt sections of the Internal Revenue Code.

Application of the approach to interpretation suggested in Section II to the phrase "trade or business" in the bad debt section illustrates how a systematic widening of the context of analysis leads to a fluctuation in the tentative meanings assigned to the phrase from context to context. The wording of the entire bad debt section alone gives little clue as to whether the phrase should be given a broad or narrow meaning.²² When the context of interpretation is widened to include consideration of some other relevant sections of the Code, the narrow meaning which the courts have attributed to the phrase in these sections suggests that "trade or business" in the bad debt section should be assigned a tentative meaning that is narrow in scope. When the context is further widened to include the legislative history of the bad debt section, there is a reasonably clear indication that the problem that Congress was attempting to cope with by introducing the phrase into the bad debt section in 1942 would have best been handled by giving "trade or business" a meaning that is broad in scope. When the context is widened still further to include policies embodied in relevant provisions of the Code, the pendulum swings back again, and a narrow meaning of "trade or business" in the bad debt section seems more appropriate.

When the phrase "trade or business" was introduced into the bad debt sec-

²² "Broad" meaning is here used to indicate an interpretation of "trade or business" which includes a greater number of taxpayer activities.

tion in 1942, it had already acquired a congealed meaning in the loss and expense provisions of the Code. This meaning should be considered when the context of analysis is widened to include other relevant provisions of the statute as well as the literal wording of the entire bad debt section itself. For this reason, the loss and expense sections are the ones that have been examined in detail here; however, a more complete investigation would consider the meaning that the phrase has been given in over sixty other sections of the Code.

THE CONGEALED MEANING OF "TRADE OR BUSINESS"
EXPENSE AND LOSS SECTIONS

The following analysis of the interpretations of the term "trade or business" in the expense and loss sections of the code not only shows what meaning has been assigned to the phrase in these two sections, but also indicates how a disregard of legislative history can lead the courts to an interpretation narrower than that which seems to have been intended by Congress.

After the Supreme Court held income taxes to be unconstitutional in *Pollock v. Farmers' Loan & Trust Co.*,²³ a coalition of insurgent Republicans and Democrats succeeded in passing a law taxing corporate income in 1909.²⁴ To avoid the provisions which had caused the Supreme Court to strike down the 1894 Income Tax Act, the Corporate Tax Act was worded as an excise tax on the right to carry on business, measured in amount by the net income of the corporation. In upholding the constitutionality of this tax in *Flint v. Stone Tracy Co.*,²⁵ the Supreme Court gave the statute a broad application by defining "business" broadly as "that which occupies the time, attention and labor of men for the purpose of a livelihood and profit . . . everything about which a person can be employed."

Encouraged by the broad construction of the 1909 Act and pessimistic over the fate of the pending Income Tax Amendment to the Constitution, the same coalition attempted in 1912 to extend the "excise tax" to individuals and partnerships as well. The new bill was similarly worded to tax "doing of business" measured by "net income from whatever source derived."²⁶ The congressional debates show that "business" was intended here to have the broad application of the *Flint* definition,²⁷ and was to cover even profits derived from the ownership of property or from lending money to individuals or corporations. The tax was designed to reach all but the "idle holder of idle wealth."²⁸

In computing net income, the so-called "measure" of the tax, the 1912 bill would have allowed the deduction of all "necessary expenses actually paid in

²³ 158 U.S. 601 (1895).

²⁴ 36 Stat. 11 (1909).

²⁵ 220 U.S. 107 (1911).

²⁶ See Bill introduced March 2, 1912, H.R. 21214, 62d Cong., 2d Sess.

²⁷ *Id.*, at §§ 1 and 2, reproducing verbatim the *Flint* definition of "trade or business." See also 48 Cong. Rec. 3505, 3568-70, 3584-3630 (1912) (House), and 48 Cong. Rec. 9681-83, 9694-96 (1912) (Senate).

²⁸ *Ibid.*

carrying on any business.”²⁹ The “business” qualification was inserted to insure that no personal, living or family expenses were deducted.³⁰ Still thinking in terms of the broad “constitutional” concept of “business,” Congress intended the deduction to encompass all expenses connected with the production of income.

The “individual excise tax” bill of 1912 had been passed by both the House and the Senate, and had been referred to a Conference Committee when the Sixteenth Amendment was enacted. With constitutional obstacles thus removed, Congress abandoned the idea of an excise on profit-seeking *activities* in favor of a general tax on *net income*.

The structure of the 1912 bill, coupled with the 1909 corporate tax law, provided the foundation for the Income Tax Act of 1913.³¹ The new act’s only substantial change shifted the tax from a levy on “doing business measured by net income” to a tax on the net income itself. The provision of the 1912 bill, allowing individuals to deduct all necessary business expenses, was transferred verbatim to the new act and coupled with the provision of the 1909 Act allowing corporations to deduct all “ordinary and necessary expenses paid . . . in the maintenance and operation of its business and properties.”³² Both sections spoke of “business” in the light of the meaning set forth in the *Flint* definition. There is no indication in either the Committee Reports or the congressional debate that the phrase as used in the 1913 Act was intended to have a new meaning, more restricted than or otherwise different from the meaning theretofore assigned to that phrase.

At the origin of the income tax law the phrase “trade or business” was, thus, synonymous with any profit-seeking activity. The phrase was first used to obviate a constitutional objection to the tax on income, and then, to insure that living expenses constituting the cost of living were not deducted. There is no indication that the phrase “trade or business” was used to differentiate between two kinds of profit-seeking activities.

Problems in interpreting the phrase “trade or business” first arose in connection with the loss provision of the 1913 Act. The “business” qualification was originally inserted there, as in the expense section, to distinguish commercial losses from losses incurred entirely apart from transactions for profit and to make “a man pay upon . . . his actual profit during the year.”³³ However, the

²⁹ *Ibid.*

³⁰ Cf. the corresponding provision of the 1913 Act (§ IIB) which was carried over from the 1912 Bill.

³¹ Act of Oct. 3, 1913, H.R. 3321, Public No. 16, 63d Cong., 1st Sess.

³² *Id.*, at §§ II (B) and II (G). Section 214 (a) (1) of the Revenue Act of 1918 reworded the deduction to cover “all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on *any* trade or business . . .” (Italics added.)—the wording still used at present.

³³ *Ibid.*

Bureau and the courts lost sight of the initial meaning and purpose of the words "trade or business" and interpreted these words to exclude all losses from activities not engaged in *regularly* by the taxpayer, and primarily to exclude losses on stock speculation.³⁴ In the Revenue Act of 1916, Congress added a new provision which allowed a deduction to the taxpayer for losses sustained in "transactions entered into for profit but not connected with his business or trade."

One of the first cases³⁵ to attempt a definition of a trade or business *expense* refused to follow the narrow precedent of the loss cases and, instead, accepted the broad definition of "business" set forth in *Flint*. This interpretation, by and large, was followed in all expense cases before the late nineteen-thirties.³⁶

The belief that Congress could constitutionally tax only net income seems to have been implicit in the early decisions which gave a broad interpretation to "trade or business expenses." Therefore, wherever an activity gave rise to taxable income, the courts appear to have felt that deductions for all the expenses or losses attributable to that income had to be allowed. However, the courts later began to assert that deductions were a matter of grace and should be strictly construed, thus suggesting judicial acceptance of the idea that Congress could tax *gross* income within the limits of the Sixteenth Amendment. In keeping with this change in outlook, the phrase "trade or business expenses" underwent new scrutiny, resulting in a narrowing of its meaning.

The new interpretation injected a qualitative element into the phrase. The courts now became interested in what the taxpayer does for others—the taxpayer must hang out a shingle! The first declaration of this new concept of "business" was set forth in the concurring opinion of Justices Frankfurter and Reed in *Deputy v. Dupont*.³⁷ The concurrence stated what it admitted was a "somewhat novel suggestion": that carrying on any "trade or business" under the expense section of the Code was confined to holding "one's self *out to others* as engaged in the selling of goods or services." (Italics added.) Shortly there-

³⁴ *Mente v. Eisner*, 266 Fed. 161 (C.A. 2d, 1920). The language of the loss section lent itself to a narrower interpretation than the expense section. The expense section, which was worded "any trade or business," permitted a finding that a taxpayer may be engaged in more than one business; there was no need to bunch the taxpayer's activities into *one* business. The loss section, on the other hand, was phrased in terms of "*his* trade or business" (1913-1917), "*the* trade or business" (1919-1934) and finally, just "trade or business," and thus, tended to connote singularity.

³⁵ *Albert M. Briggs*, 7 B.T.A. 409 (1927).

³⁶ The main problems litigated in the expense field concerned the expenditures of investors, fiduciaries and various ventures operated as hobbies. In these areas the courts, and for the most part, the Bureau interpreted the phrase "trade or business" broadly in determining who qualified for expense deductions. The position of the Bureau is summed up in 1935 in an unpublished letter stating that it had "adopted the policy of allowing the ordinary and necessary expenses paid or incurred during the taxable year with respect to the management, protection and handling of properties producing taxable income."

³⁷ 308 U.S. 488 (1939).

after, in the celebrated case of *Higgins v. Commissioner*,³⁸ it was held—this time by the majority of the Court—that the investment of one's funds could not constitute a business. The *Flint* definition was rejected as based on the corporation ("excise") tax law and consequently inapplicable to the "dissimilar income tax field." All prior cases holding personal investment activities to constitute "trade or business" were distinguished as turning on the extent of the taxpayer's participation in the management of the corporation in which investments were held.

The ramifications of the *Higgins* decision³⁹ were rather severe. Investors found that while their private investment income was fully taxable, their expenses were deductible only if they could show, in addition to a profit motive and continuity of activities, that they were "engaged in the selling of goods and services." The "business" of speculation for profit vanished as far as the expense section was concerned.⁴⁰ A new category of activities was developed, with fully taxable income but nondeductible expenses.

Congress promptly acted to correct the inequitable situation that this narrow interpretation of the phrase "trade or business" had created. The Revenue Act of 1942 contained a section providing for the deduction of all ordinary and necessary expenses incurred in (1) the production or collection of income, or (2) the management, conservation or maintenance of income producing property.⁴¹

³⁸ 312 U.S. 212 (1941).

³⁹ The Supreme Court in two later decisions further interspersed Justice Frankfurter's "novel" definition of "business" into the expense field. In *City Bank v. Helvering*, 313 U.S. 121 (1941), the Court upheld the lower court's determination that the fiduciary activities of a trustee were those of a "mere" passive investor and did not engage him in "trade or business." In *United States v. Pyne*, 313 U.S. 127 (1941), it disallowed a business expense deduction for legal fees paid by an executor whose activities were directed primarily toward the conservation of the assets of an estate.

The two decisions introduced new ambiguities concerning the business status of fiduciaries. In both cases the Court explained what "trade or business" was not; it decided that the trust (or estate) activities considered by the Court in these cases did not elevate the fiduciary to the position of a business trustee (or executor). But this left some important questions undecided. Should a trustee, in order to be allowed a business expense deduction, be regularly engaged in a fiduciary capacity as "a matter or business," or would it suffice for him to manage the affairs of a trust or estate composed of a business or businesses?

⁴⁰ *Helvering v. Highland*, 124 F.2d 556 (C.A. 4th, 1942). As to fiduciaries, their expenses could not be deducted if their activities centered—as is usually the case—around holding and safeguarding funds, collections and distribution of income, making investments, and keeping accounts. *Corrigan v. Commissioner*, 155 F.2d 164 (C.A. 6th, 1946). An additional, vague "selling of services" was required.

⁴¹ After this amendment litigation in this area declined. Except in cases involving fiduciaries, in controversies over the deductibility of expenses the taxpayer has usually argued in the alternative that the expenses were either incurred (1) in the trade or business or (2) in connection with income-producing property. This, in fact, has made it possible for the courts to examine only whether or not the transaction was entered into for profit and to allow a deduction on an affirmative finding to that effect, thereby making a determination of whether the expense was incurred in a trade or business "unnecessary." Thus, the line between business expenses and those incurred in other income-producing activities has faded away.

Thus as in the case of the loss section, the cycle of interpreting the phrase "trade or business" in the expense section took a full turn. Congress initially allowed for the deduction of all ordinary and necessary business expenses, signifying thereby all expenses incurred in the production of income. This broad interpretation of the term "business" was followed for years before the Supreme Court limited its meaning to those activities in which taxpayers hold out their goods or services to others. Congress, in order to accomplish the result that was originally intended, then set up a new category of non-"trade or business" expenses, which were also made fully deductible.

The history of judicial interpretation of the phrase "trade or business" in the loss and expense sections illustrates how failure by the courts to consider the historical background of a statute may lead them to depart from legislative intent. It is suggested that such judicial waywardness can be minimized if courts are willing to discipline themselves to interpret words only in the *total* context in which those words appear. Interpretation from partial context often misses the mark.

A court using a contextual approach in interpreting "trade or business" in the loss section would have considered that the words were originally used in the 1912 act with the broad purpose of obviating constitutional objections to the taxation of all income producing activities. Then, weight would have been given to the legislative history of the loss deduction section itself. This history indicates that the provision was enacted to insure that the tax would be levied only on the *net income* from all transactions for profit. Furthermore, the amendment to the loss section in 1916 to allow a deduction for losses sustained in transactions for profit indicates rather clearly that in that section Congress originally intended to allow a deduction for all losses sustained in any income producing activities of a taxpayer. In this amendment Congress thus reaffirmed the policy of taxing net income only. The same comments apply to the narrow interpretation of trade or business in the expense section by the Supreme Court in the *Higgins* case.

The narrow judicial interpretation of "trade or business," which prompted legislative correction in the expense and loss sections, has been mechanically imported by the Court into the bad debts section. Once again, giving the phrase a narrow meaning has had the effect of thwarting the policy that Congress was apparently seeking to implement in 1942 when it introduced the phrase "trade or business" into the bad debt section.⁴² A contextual approach to interpretation, which embodies the systematic and tentative characteristics of scientific

⁴² The distinction between business and nonbusiness debts introduced into Section 166 was aimed at minimizing revenue losses attributable to the fraudulent practice of deducting intra-family gifts disguised as loans. There is no indication in the legislative history of the 1942 amendment that the phrase "trade or business" was intended to restrict deductions in any situations, except those involving intra-family gift abuses. The phrase was apparently only used to distinguish bona fide commercial activity from intra-family gifts.

method, can help point up the justification (or lack of it) for such results. It would take into account not only the prior congealed meaning of the words "trade or business," but also the legislative purpose of the 1942 amendment to the bad debt section as well as relevant general policies embodied in the entire statute.

LEGISLATIVE INTENT AND POLICY: BAD DEBT SECTION

The distinction between business and non-business activities for the purposes of bad debt deductions is of relatively recent vintage. For a long time litigation in the field of worthless indebtedness was limited to problems of the appropriate year for deduction and the genuineness of the debtor-creditor relationship. The distinction between business and non-business debts was introduced in 1942 apparently as a means of minimizing revenue losses attributable to the fraudulent practice of deducting intra-family gifts disguised as loans.⁴³ The 1942 Act in effect recognized that it was impossible to detect many such fraudulent deductions without prohibitive administrative expense. The problem was solved by dividing loans into those which were likely to be gifts and those which were not, and by limiting the deductibility of all debts in the suspect category.⁴⁴

In distinguishing between business and non-business bad debts, little attention was paid to legislative history. Instead, the courts simply applied tests which had previously been developed in interpreting other sections of the Code.⁴⁵ The meaning of trade or business extrapolated from these sections was narrower than that suggested by the legislative history of the 1942 amendment.⁴⁶

The failure to consider the full context and concomitant mechanical importation of restrictive concepts of trade or business into the bad debt section was particularly felt in the field of corporate financing. In general, to qualify for a business bad debt deduction a lender has been required to show either that the

⁴³ H.R. Rep. No. 2,333, 77th Cong., 2d Sess. 45 (1942). The impressive number of pre-1942 cases in which the Treasury has challenged the good faith of alleged loans to relatives demonstrates that Congress' concern was justified. E.g., *Jones*, 13 B.T.A. 1271 (1928); *Bowles*, 1 B.T.A. 584 (1925); *Page*, 2 B.T.A. 1316 (1925).

⁴⁴ By allowing only a limited deduction for losses on business debts, the amendment makes it economical for the Commissioner to forego litigation, thus avoiding a difficult burden of proof which before 1942 he often failed to sustain. E.g., *Redfield v. Eaton*, 53 F. 2d 693 (D. Conn., 1931); *Ortiz*, 42 B.T.A. 173 (1940); *Spencer*, 21 B.T.A. 859 (1930); *Baumann*, 8 B.T.A. 107 (1927).

Judging from the small number of cases decided under the 1942 statute, the amendment has achieved its purpose.

⁴⁵ See pp. 38-41 *supra*. Cases interpreting the term "trade or business" in regard to expenses, net operating losses carry-overs, and losses, have been applied by the courts, without examining their relevance, in the determination of the bad debt cases. See, e.g., *Commissioner v. Stokes' Estate*, 200 F.2d 637 (C.A. 8th, 1953); *Sage*, 15 T.C. 299 (1950).

⁴⁶ See p. 47 *supra*.

debt was acquired "incident to his trade or business"⁴⁷ or that he is in the "business of lending money."⁴⁸ Where the loan is to a corporation, the allowance of a full deduction upon worthlessness of that loan is said to depend on whether the lender is an "active financier" or a "passive investor."⁴⁹ In making this determination the courts generally have not referred to the legislative history of the 1942 amendment.⁵⁰ Originally the inquiry was whether or not the taxpayer was in the business of "promoting" business ventures,⁵¹ not whether he was in the money lending business. Today most courts merely inquire whether or not the taxpayer is a professional money lender.⁵² The promoter is no longer an "active financier" entitled to a business bad debt deduction. He has been shifted to become a mere "passive investor." This shrinking of the concept of "trade or business" in the bad debt section has prevented many lenders to corporations from receiving a full deduction from ordinary income, even though they are clearly not making gifts. The deductibility of losses sustained in many truly commercial transactions has thus been limited to a capital loss deduction.⁵³

The "promoter" theory,⁵⁴ born in connection with trade or business losses, has thrived in the field of bad debts. The parenthood of the theory can be attributed to the cases of *Washburn v. Comm.*⁵⁵ and *Foss v. Comm.*⁵⁶ In *Washburn*, the Court of Appeals for the Eighth Circuit was confronted with the problem of distinguishing a passive security holder from one whose dealings with certain corporations were so broad that such dealings could be said to be a "trade or business" in themselves. In allowing a business loss carry-forward, the court held that the "taxpayer's income was the result not alone of his investment, but also of his labor expended in connection with the management of the companies

⁴⁷ Bart, 21 T.C. 880 (1954); A. Rubel, P-H 1954 T.C. Mem. Dec. ¶ 54241; J. N. Hubbard, P-H 1952 T.C. Mem. Dec. ¶ 52287; Ingersoll, 7 T.C. 34 (1946).

⁴⁸ Estate of Morris H. Cone, P-H 1954 T.C. Mem. Dec. ¶ 54162. Cf. E. W. Waybright, P-H 1951 T.C. Mem. Dec. ¶ 51189. See also Commissioner v. Smith, 203 F.2d 310 (C.A. 2d, 1953).

⁴⁹ Compare C. Yewdall, P-H 1954 T.C. Mem. Dec. ¶ 54087, with W. C. Byers, P-H 1955 T. C. Mem. Dec. ¶ 55045.

⁵⁰ Only the very first case construing the 1942 amendment made any reference to the purpose behind the distinction between business and non-business debts. Cluett, 8 T.C. 1178 (1947).

⁵¹ E.g., Sage, 15 T.C. 299 (1950); Macy, 8 T.C.M. 45 (1949).

⁵² See, e.g., the leading case of Commissioner v. Smith, 203 F.2d 310 (C.A. 2d, 1953).

⁵³ E.g., Commissioner v. Smith, note 48 supra; J. M. Hickerson, P-H 1954 T.C. Mem. Dec. ¶ 54343; L. F. Crofoot, P-H 1949 T.C. Mem. Dec. ¶ 49236; Kalech, 23 T.C. 672 (1955). In these and other cases no family relationship was involved nor was there any suggestion that the loans were disguised gifts.

⁵⁴ See generally Nonbusiness Bad Debt—Is the Taxpayer Getting the Business?, 8 Miami L.Q. 593 (1954), and an excellent article, Bakst, Bad Debt Treatment of Stockholders Loans to Closely-Held Corporations, 25 N.Y. Certified Public Accountant 51 (1955).

⁵⁵ 51 F.2d 949 (C.A. 8th, 1931)

⁵⁶ 75 F.2d 326 (C.A. 1st, 1935).

in which he had investments. The combination of the two [was] his vocation."⁵⁷ Predicated on the *Washburn* decision, the Court of Appeals for the First Circuit reached the same conclusion in the *Foss* case. There, the taxpayer was the holder of substantial investments in a number of enterprises. He devoted substantial time to the active management of these companies, maintaining an office for that purpose. The Court held that *Foss* was engaged in a business; it described active financiers as those who associate themselves actively in the enterprises in which they are financially interested and devote a substantial part of their time to that work as a matter of business.⁵⁸ Thus, these two circuit courts seem to have recognized as coming within the "trade or business" concept, the activities of a taxpayer who actively participated in the *management* of corporations in which he had a controlling interest.

In *Samuel Lanski*,⁵⁹ the Tax Court developed a narrower test, which opened the door to a "promoter" concept of trade or business involving more than the management of just one or a few corporations. The court noted that the taxpayer managed only corporations in which he was a substantial stockholder and lent money only to those corporations, and emphasized that he received income for his activities only from his capital investment and from his salary as a corporate officer. He did not receive ". . . any bonus, fee, commission or other compensation for promoting the organization of corporations."⁶⁰ In disallowing a loss carry-forward of a worthless loan the court held that the taxpayer was neither in the business of lending money to corporations for a livelihood nor in the business of "promoting" corporations. He was merely a manager of corporations, which activity the court did not consider to be a business. Thus under the holding of *Lanski* the taxpayer need not be engaged in the business of *lending* money; it is, however, necessary that he derive income directly from *promotion* (in the form of fees or bonuses) apart from dividends received as an investor or salary received as a manager. The *Washburn* and *Foss* cases, on the other hand, imply that income from management and investment activities alone is sufficient to qualify the loans of its recipient as incurred in a "trade or business." This suggests that in *Washburn* and *Foss* management and investing alone may constitute promoting; but in *Lanski*, something more is required.

The test applicable in determining who is a business lender is further complicated by an earlier Supreme Court Case. In *Burnet v. Clark*,⁶¹ Justice McReynolds expounded the "separate entity" theory, which is in conflict with the broad "promoter" test of *Washburn* and *Foss*. In that case, the taxpayer was the majority shareholder of a dredging corporation, to the management of which he devoted

⁵⁷ *Washburn v. Commissioner*, 51 F.2d 949, 951 (C.A. 8th, 1931).

⁵⁸ *Foss v. Commissioner*, 75 F.2d 326, 329 (C.A. 1st, 1935).

⁵⁹ 34 B.T.A. 1019 (1936).

⁶⁰ *Id.*, at 1026.

⁶¹ 287 U.S. 410 (1932).

most of his time. He also contributed advice to other business ventures in which he owned an interest. The impaired financial position of the dredging corporation impelled Clark, in his desire to preserve his investment, to endorse the corporation's notes. The carry forward of a substantial loss sustained on one of these endorsements was disallowed. The Court held that the loss did not result from the operation of a business and declared that the dredging business which the taxpayer managed as an officer of the corporation "was not his own." A corporation and its shareholders and managers are "generally treated as separate entities." Furthermore, since the taxpayer "was not regularly engaged in endorsing notes," the endorsement on which the loan was sustained was merely an occasional transaction.

The implications of the *Clark* case created difficulties for shareholder-lenders after the introduction of the "trade or business" concept into the bad debt section in 1942.⁶² The *Clark* case divided the taxpayer's activities into management and lending and focused attention solely upon the taxpayer's lending activities. This set the stage for the holding that the sporadic lending or endorsement of corporate notes is not enough to get the taxpayer into the category of persons engaged in the business of lending money; thus losses on such loans are not business loans. On the other hand, a "promoter" theory that looks to the total activity of the taxpayer in investing, managing and lending with respect to one or several corporations would accept these activities as the "business of promoting corporations"—a business separate and apart from the business in which the corporation is engaged. A single loan incident to promoting corporations would be a business loan even though the taxpayer was not engaged in the business of lending money. Thus, losses on such loans would be business losses.

These conflicting views of "trade or business" have congealed into definite tests, but the choice between them has continuously troubled the courts in the cases dealing with the bad debts section since its amendment in 1942. Thus, where the taxpayer takes an active part in the activities of only one or two corporations, the Tax Court has not applied the "promoter" theory, but has used the *Clark* "separate entity" doctrine and has regarded loans to these corporations as non-business debts.⁶³ On the other hand, taxpayers involved with the

⁶² See p. 52 *supra*.

⁶³ See *Berwind*, 20 T.C. 808 (1953); *Bihlmaier*, 17 T.C. 620 (1951); *Palmer*, 17 T.C. 702 (1951). For a case recognizing the contemporaneous existence of both the Washburn and Clark doctrines, see *Omaha Nat'l Bank v. Commissioner*, 183 F.2d 899 (C.A. 8th, 1950).

The success of the Clark separate entity doctrine in the field of bad debts resulting from loans to corporations is difficult to understand if the decision in that case is compared to the liberal approach in the line of cases which have held that, for the purpose of deducting expenses, an officer or director of a corporation is engaged in the business of "acting in that capacity." *Commissioner v. People's Pittsburgh Trust Co.*, 60 F.2d 187 (C.A. 3d, 1932); *Hochschild v. Commissioner*, 161 F.2d 817 (C.A. 2d, 1947); *Daily Journal Co. v. Commissioner*, 135 F.2d 687 (C.A. 9th, 1943); *Hurt*, 30 B.T.A. 653 (1934); *Holmes*, 37 B.T.A. 865 (1938). See also *Guterman*, *Some Problems of Bad Debts*, 63 *Harv. L. Rev.* 832, 837 (1950).

management of a number of corporations have been able to successfully invoke the *Washburn-Foss* liberal test of "trade or business." Thus, in instances where substantial time had been given to managing corporations or other ventures, such activity has been regarded as a business in itself and the *Clark* case distinguished.⁶⁴

Pinpointing the confines of the "separate entity" and "promoter" doctrines had been sufficiently difficult for courts and tax practitioners. The arrival of *Weldon D. Smith v. Comm.*⁶⁵ on the scene in 1952 has added to the confusion.⁶⁶ In that case the taxpayer was an investor, manager and creditor in a number of business enterprises, to one of which he had made substantial loans. Yet, only a non-business bad debt deduction was allowed. The court held that "since each of these activities separately does not constitute a business, we cannot see how a combination of them spread over various businesses can alter the result. Of course, if respondent were regularly engaged in lending money to business enterprises, bad debt losses resulting therefrom would be incurred in his business."⁶⁷

According to the *Smith* case then, it is not sufficient for the taxpayer to be regularly engaged in the full-time management and promotion of business enterprises. In order to obtain a business bad debt deduction, he must hold himself out as a money lender. The activities he carries on must be similar in nature to those of banks and other financial institutions. In this respect the *Smith* and *Clark* cases are alike. They both applied the money-lender test to determine whether or not the taxpayer qualified for a business deduction. However, there is an important difference between the two cases. The *Clark* case did not exclude the possibility of a "promoter" test as an alternative to the "money-lender" test. The *Smith* case, on the other hand, emphatically rejects the "promoter" test, and adopts "money-lending" as the exclusive test of business debts in the field of corporate financing. The Second Circuit, thus, extended the *Clark* doctrine to disallow an ordinary loss deduction in all "promoter" cases where the taxpayer is not also a money-lender (which is the bulk of "promoter" cases).⁶⁸

Following the *Smith* case, the courts' acceptance of the "promoter" theory has become increasingly unpredictable.⁶⁹ While recognizing the theory's con-

⁶⁴ E.g., *Campbell*, 11 T.C. 510 (1948); *Macy*, 8 T.C.M. 45 (1949); *Sage*, 15 T.C. 299 (1950); *Hanna*, 10 T.C.M. 566 (1951). See also *Commissioner v. Stokes' Estate*, 200 F.2d 637 (C.A. 3d, 1953).

⁶⁵ 203 F.2d 310 (C.A. 2d, 1953).

⁶⁶ See *Bratton*, 12 T.C.M. 747 (1953).

⁶⁷ *Commissioner v. Smith*, 203 F.2d 310, 312 (C.A. 2d, 1953).

⁶⁸ See the cases cited note 64 supra. Compare *J. Mark*, 1951 P-H T.C. Mem. Dec. ¶ 51225 (taxpayer who organized twelve corporations held to be a "promoter") with *J. Weather*, 1955 P-H T.C. Mem. Dec. ¶ 55104 (where on the authority of *Smith*, the Tax Court held in a similar context that the taxpayer was merely a "man investing and managing in his own businesses"). See also *Baum*, 13 T.C.M. 853 (1954).

⁶⁹ See note 68 supra and cases there cited.

tinued viability,⁷⁰ the Tax Court has tended to regard it as applicable only in the "exceptional" case.⁷¹ Thus, a recent Tax Court opinion disallowed a deduction from ordinary income to a taxpayer who actively managed eighteen corporations and participated in the administration of many more.⁷² Greater emphasis has been placed on whether the taxpayer was regularly engaged in the business of money lending. Some cases have further narrowed the "promoter" doctrine by requiring extensive promotional activities during the same taxable year in which the debt became worthless.⁷³

Not all of the Circuit Courts agree with the Second Circuit's restriction on what constitutes trade or business. Recently the Tax Court's implementation in *Vincent C. Gilblin*⁷⁴ of the *Smith* decision was reversed by the Fifth Circuit in a strongly worded opinion that seems to give a new twist to the "promoter" theory. The taxpayer was a lawyer who had financed and actively managed at least nine ventures between 1925 and 1945. He had made loans to Stag Bar, Inc., which resulted in losses that he wished to deduct as a business bad debt. He had not, however, made any other loans. Since under the *Smith* case the combination of the taxpayer's promotional or managerial activities with respect to his different ventures would not have constituted a "business" any more than his separate activity in connection with Stag Bar, the Tax Court disregarded the "promoter" argument. Evidence did not show that the taxpayer was regularly engaged in the business of money lending during the taxable year and, thus, he was not allowed an ordinary deduction. On appeal the Fifth Circuit ignored the *Smith* decision and chided the Tax Court for missing the point of the taxpayer's argument. The fact that the taxpayer had loaned money to only one enterprise was not determinative of the case. According to the appellate court, "[p]etitioner's right to deduct the amount of the cancelled debt depends not upon his showing, as the Tax Court seemed to think, that he was in the business of lending money, but rather that he was regularly engaged in the business of 'dealing in enterprises.' . . ." After citing some of the promoter cases, the Circuit Court concluded that the taxpayer was engaged in the business of seeking out business opportunities, organizing and financing them, contributing to them his time and energy and then disposing of them either at a profit or loss. The court stated that to hold that the bad debt of such a dealer in enterprises "was not suffered in the course of his engaging in a trade or business, would be to apply a sterile and rigid approach that is not contemplated by the statute."⁷⁵ Thus, there is a head-on conflict in the circuit courts as to the appropriate test of what constitutes trade or business for purpose of the bad debt section. The resolution of this conflict requires an examination of the policies competing for recognition in the field of corporate financing. Policy too,

⁷⁰ Schomburg, 13 T.C.M. 234 (1954).

⁷³ Fuller, 21 T.C. 407 (1953).

⁷¹ Berwind, 20 T.C. 808 (1953).

⁷⁴ 227 F.2d 692 (C.A. 5th, 1955).

⁷² *Ibid.*

⁷⁵ *Id.*, at 695, 698.

must be taken into account in a contextual approach to interpretation, as well as legislative history and congealed meaning of words.

Three policies appear particularly pertinent: Equalization of the treatment of investment losses irrespective of their form, equalization of the treatment of investment losses irrespective of whether the loss is upon the disposition of the investment or upon worthlessness, and finally, equalization of the treatment of losses with that of gains.

An individual organizes one corporation, subscribes to a large share of its stock, takes its long-term notes in return for personal loans, and actively participates in its management as president. Usually he receives no fee or bonus as recompense for his organizational activity. He derives income from the enterprise in two capacities. As an investor he receives interest on his loans and, as the corporation prospers, dividends on his stock. As a manager he receives his salary and bonuses. To the extent that the corporation prospers by his efforts, he is rewarded by increased dividends and compensation as manager. Since an established principle of income taxation requires that the affairs of the taxpayer and his closely held corporation be kept separate, the taxpayer may not consider the corporation's business as his own. But, suppose that the taxpayer has twelve corporations rather than one. His relationship to each as investor and manager has not changed qualitatively by reason of there being twelve. His income continues to be derived in the same two capacities; no new source or form of income develops by virtue of his managing and investing in a large number of corporations. In short, the taxpayer is doing nothing different with respect to his twelve corporations than he had been doing with respect to his first. He is only doing the same thing, but for more corporations. The promoter doctrine, as applied by the courts to allow ordinary deductions to qualifying taxpayers, appears to be the psychological embodiment of a purely quantitative phenomenon.

The numerical test required by the "promoter" doctrine is both artificial and discriminatory.⁷⁶ If the taxpayer organizes and lends money to one large corporation with twelve branches in different areas, his loans, should they become worthless, would only be entitled to treatment as capital losses. But if he should organize and actively manage twelve separate corporations, under the promoter theory, losses on his loans would be entitled to a business bad debt deduction.⁷⁷ Further, so long as several ventures are organized, it matters not (for the majority of cases, at least) whether this is done in or around the taxable year or over a period of many years.⁷⁸ Thus the "promoter" who organizes a single venture after a period of quiescence is given more advantageous tax treatment than the non-promoter who does precisely the same thing but for the first time. Generally, the promoter doctrine discriminates against the novice and the small-scale organizer who has only a few corporations in favor of the big and ex-

⁷⁶ See note 79 *infra*.

⁷⁷ See, e.g., *Campbell*, 11 T.C. 510 (1948).

⁷⁸ See case cited note 74 *supra*.

perienced operator who organizes many.⁷⁹ The inequities of this doctrine appear unjustifiable.

Furthermore, the promoter doctrine frustrates the policy, expressed in section 165(g) of the Code, equating the treatment of losses suffered on the *worthlessness* of capital assets that are investments in corporations with losses suffered on the *disposition* of such assets.⁸⁰ At present a loss suffered upon the *sale* of notes by a promoter is treated as a capital loss.⁸¹ However, losses suffered upon the *worthlessness* of notes held by that same taxpayer are allowed as deductions from ordinary income under the promoter theory.⁸²

⁷⁹ A comparison of several cases illustrates the point. Business bad debt allowed: Campbell, 11 T.C. 510 (1948) (taxpayer owned and financed twelve corporations); Jacob Mark, 1951 P-H T.C. Mem. Dec. ¶ 51225 (taxpayer financed twelve retail coal businesses); Macy, 8 T.C.M. 45 (1949) (taxpayer organized over twenty corporations); Macy, 8 T.C.M. 713 (1949) (similar). Only non-business bad debt deduction allowed: Boissevain, 17 T.C. 325 (taxpayer organized, promoted, financed and managed only *one* corporation); Fred R. Angevine, 1951 P-H T.C. Mem. Dec. ¶ 51319 (same); Wallace L. Cheshire, 1952 P-H T.C. Mem. Dec. ¶ 52042 (taxpayer was stockholder and officer of several corporations, but financed and made loans to only one of them); William Bernstein, 1952 P-H T.C. Mem. Dec. ¶ 52031 (lawyer and accountant promoted and managed only one corporation); J. Terry Huffstutler, 1954 P-H T.C. Mem. Dec. ¶ 54000 (loan by stockholder to corporation—he promoted three or four corporations, but financed only two and made loans only to one).

⁸⁰ This policy was explicitly incorporated into the Code in the Revenue Act of 1938. The Report by the Ways and Means Subcommittee, 75th Cong., 3d Sess. 45, H. Rep. Jan. 14, 1938, states:

“Under the existing law losses resulting from the fact of stock or securities becoming worthless are permitted to be deducted in full from gross income, without regard to the provisions of section 117 of the Revenue Act of 1936, which as now drawn apply only to losses resulting from the sale or exchange of capital assets. . . .

“It is the purpose of the above recommendation to remove this anomaly in existing law (except in the case of a dealer in securities) by henceforth subjecting losses sustained by reason of corporate securities having become worthless to the same limitations as losses realized on the sale or exchange of such securities.”

⁸¹ A loss on the sale of a note is considered a loss from the “sale or exchange” of a capital asset. E.g., E. Reynal, 1955 P-H T.C. Mem. Dec. ¶ 55078; Lehr, 18 T.C. 373 (1952); Perkins, 41 B.T.A. 1225, 1231 (1940). See also *Parke v. Commissioner*, 1956 P-H Fed. ¶ 72809. (C.A. 8th, 1956).

Prior to the 1954 code even accounts and notes receivable acquired in the ordinary course of business were capital assets unless held by a person in the business of selling notes and accounts. See, e.g., Levy, 46 B.T.A. 423 (1942); *Graham Mill & Elevator Co. v. Thomas*, 152 F.2d 564 (C.A. 5th, 1945); *Hilton*, 13 T.C. 623 (1949); Lehr, 18 T.C. 373 (1952). This was changed by the 1954 Code. Int. Rev. Code of 1954 § 1221(4), 26 U.S.C.A. § 1221(4) (1954).

It is possible, however, that after the decision of the Supreme Court in *Corn Products Refining Co. v. Commissioner*, 350 U.S. 46 (1955), losses suffered by a lender or a promoter upon disposition of his notes may be treated as ordinary losses even though realized by a taxpayer who is not in the business of selling notes. The *Corn Products* case held that a gain or loss upon the disposition of an asset acquired by the taxpayer in connection with his trade or business is an ordinary gain or loss even where the asset disposed of was not held for sale to customers or does not otherwise fit within any of the exceptions to the definitions of a capital asset in § 1221 of the Code. Both the money lender and the promoter (where the promoter doctrine is recognized) acquire debt instruments as a consequence of their business, although they may not customarily sell such instruments. See also note 83 *infra*.

⁸² When a note becomes worthless, there is no “sale or exchange” and, therefore, no application of the capital loss section of the Code. Int. Rev. Code of 1954 § 1211. For this reason,

The broader policy consideration of equalizing the tax consequences of investment losses irrespective of their paper-form ("stock or securities" as distinguished from notes) also weighs against the traditional promoter doctrine. Professional money-lenders hold instruments evidencing indebtedness (including notes or bonds) as an incident of their business. While held simply as a necessary incident to such a trade or business of lending money, an instrument evidencing a debt should be, and now is,⁸³ considered a business asset and entitled to ordinary deduction upon worthlessness. This situation should be distinguished from that of the promoter whose loans in the form of notes, bonds or open account are a part of his investment program in several closely-held corporations that he actively manages. Viewed as investments in a controlled corporation the loans of this "promoter," whether evidenced by note or an open account, are indistinguishable from bonds defined as "securities" by Code Section 165 (g) (2).⁸⁴ Yet, worthlessness of a security would result in a capital loss even though held by a promoter,⁸⁵ whereas worthlessness of a long-term note held by that same person results in a full deduction.⁸⁶ No reason appears why the promoter should receive such disparate treatment depending simply on the form he chooses to express his creditor relationship with his enterprise.⁸⁷ In addition, the promoter takes advantage of the present unrealistic debt-stock dichotomy to further thwart the policy of equalizing the tax treatment of investment losses irrespective of their paper-form. Even though a debt issue to the promoter may

if Congress would decide to treat all worthless loans not acquired in trade or business as capital assets, it would have to include in effect all instruments evidencing loans within § 165 (g). At present this subsection defines "security" as including only some instruments of indebtedness. Such instruments that are not in registered form or do not bear interest coupons are not included.

⁸³ This is certainly so in the case of notes held by a money lender. Cf. *Commissioner v. Smith*, 203 F.2d 310 (C.A. 2d, 1953).

Even worthless bonds, defined as "securities" by § 165 (g) of the 1954 Code, may receive ordinary loss treatment if held by a money lender. Section 165 (g) gives capital loss treatment to a loss sustained on the worthlessness of a security "which is a capital asset." As pointed out in note 75 *supra*, a bond held by a lender may be considered a business rather than a capital asset under the authority of the *Corn Products* case. However, the implications of this Supreme Court decision upon the field of debt financing have not as yet been explored.

⁸⁴ *Loss Deductions for Quasi-Investors: 23(e) v. 23(k) v. 117*, 63 *Yale L. J.* 862 (1954).

⁸⁵ See *Int. Rev. Code of 1954 § 165 (g)*. But see also note 83 *supra*.

⁸⁶ See, e.g., *Campbell*, 11 *T.C.* 510 (1948).

⁸⁷ From the point of view of § 1221 of the Code, debt instruments are capital or business assets irrespective of their form (notes or bonds). Hence, in addition to the fact that bonds and notes held by a promoter are indistinguishable when viewed as investments in a controlled corporation, the capital asset section similarly commends uniform treatment of bonds and notes. However, in correlating the treatment of losses upon disposition with treatment of losses on the worthlessness of investment "which are capital assets," § 165 (g) does not include most notes. Thus, most worthless notes, which are also capital assets, may receive ordinary loss treatment under the business bad debt provision of § 166.

sometimes be economically and financially justifiable, more often the issue of debt instead of stock has merely a tax-saving motive.⁸⁸

Although the credit for dividends received provisions,⁸⁹ the "thin capitalization" doctrine⁹⁰ and unwillingness to clog the corporation's credit position may operate as deterrents, the tax advantages of debt to such closely held corporations are sizable. The redemption of an original debt issue may be used as a profit "bail-out" device by those in control of a prosperous corporation.⁹¹ Moreover, since interest is deductible to the corporation,⁹² while dividends are not, there is an additional tax incentive to having the corporation issue debts instead of stock. Thus, certain personal tax advantages will ensue to those organizers who are creditors as well as stockholders of the corporation. The allowance to the promoter of full deduction of worthless loans to closely held corporations adds another such incentive. For, if the corporation should fail, the promoter, insofar as he has chosen to invest in the form of debt, will be able to write off his loss against ordinary income. On the other hand, to the extent that he has invested in stock, he will be allowed only a capital loss deduction for his dissipated investment.⁹³

The promoter theory also frustrates the still broader policy of equalizing the treatment of income with the treatment of losses. The traditional promoter does not derive income directly attributable to his promotional services. He does not receive fees or bonuses for promotion but derives his income from sharing in the prosperity of the corporation through salaries, dividends and interest.

⁸⁸ The artificiality of the debt-stock categorization in the field of closely held corporations is well illustrated by the recent developments of the "thin capitalization" doctrine. There is a judicial trend toward the conclusion that bonds and other evidences of indebtedness are not bona fide if issued to the corporation's shareholders in exchange for assets required to get the business under way. *Miller*, 24 T.C. 923 (1955); *Schnitzer*, 13 B.T.C. 43 (1949). If, on the other hand, the purpose of the loan is to provide for "working capital," a valid debt may be recognized. *Rowan v. United States* 219 F.2d 51 (C.A. 5th, 1955). Generally it would seem that under the present formulation of the "thin capitalization" theory, a shareholder can be a creditor of his corporation only if he is the psychological equivalent of an independent lender furnishing "working capital." Furthermore, in the opinion of some reputable judges, a relationship of control between lender and borrower would almost necessarily lead to the conclusion of a "lack of indebtedness in the ordinary sense, i.e., a debt whose non-payment leads to foreclosure or attachment and execution." See dissent by Judge Clark in *Kraft Foods Company v. Commissioner*, 232 F.2d 118 (C.A. 2d, 1956). For an excellent discussion of these problems see *Bittker, Thin Capitalization: Some Current Questions*, 34 *Taxes* 830 (1956).

⁸⁹ Int. Rev. Code of 1954 § 34.

⁹⁰ See Comment, *Thin Capitalization and Tax Avoidance*, 55 *Col. L. Rev.* 1054 (1955).

⁹¹ The redemption of stock at capital gain rates is subject to substantial limitations. Int. Rev. Code of 1954 § 302. See Dean, *Rules Governing Preferred Stock Bail-Outs*, 14 *N.Y.U. Inst. of Fed. Taxation* 691 (1956). The attribution of stock ownership rules of § 318 of the 1954 Code introduces further complications. See Laiken, *Stock Redemptions; Section 302 and 318*, 14 *N.Y.U. Inst. of Fed. Taxation* 671 (1956). The repayment of a loan does not encounter these limitations.

⁹² Int. Rev. Code of 1954 § 163.

⁹³ *Id.*, at § 165 (g).

Subjectively such a promoter will usually expect to continue getting his periodic share of the profits of his corporation. He does not organize and invest in a business with a view to soon dispose of it. He is in to stay.⁹⁴ His holdings in that business are not "stock in trade."⁹⁵ If and when such a promoter disposes of his holdings, either by causing the corporation to sell its assets and dissolve or by selling his stock in that corporation, any gain realized should be—as it now is—treated as a gain on the disposition of a capital asset. Likewise, any loss sustained from the disposition or worthlessness of such holdings should be treated as a capital loss. At present, however, where the promoter theory is accepted, only losses on securities are limited to a capital loss deduction; losses on worthless debts are allowed a deduction from ordinary income to taxpayers who qualify as promoters.⁹⁶

In America today there has emerged a new type of financier who does not fit the description of the traditional promoter. He is the rare "dealer in enterprises." Although salaries, interest and dividends from his businesses may be sources of revenue to him, they are sources that he seeks to avoid. The revenue he is after is that resulting from gains on the disposition of his investments. He invests, organizes, combines and divides in order to sell. He does not get into a corporation to stay in; he gets in to get out. For such a "deal[er] in enterprises"⁹⁷ investments are stock in trade. Therefore, both gains from the disposition of his investments and losses from either worthlessness or disposition of such investments should be treated alike—as ordinary gains⁹⁸ or losses from the disposition or worthlessness of a business asset.⁹⁹ Thus, if the promoter theory is discarded as in the *Smith* case, such a dealer in businesses would still be allowed an ordinary deduction on losses sustained upon worthlessness of debts even though he is not a money-lender.

Viewed from the above perspectives the promoter theory results in inequity and inconsistency of tax treatment. It frustrates important tax policies; and its vagueness creates uncertainty and invites litigation.

The legislative history of the 1942 amendment to the bad debt section suggests that the primary purpose of that amendment was to minimize the revenue losses from the fraudulent practice of deducting intra-family gifts disguised as

⁹⁴ See, e.g., *Campbell*, 11 T.C. 510 (1948).

⁹⁵ They are not held for sale in the course of a business of buying and selling corporations. See case cited note 94 supra.

⁹⁶ See, e.g., case cited note 94 supra.

⁹⁷ See *Giblin v. Commissioner*, 227 F.2d 692, 695 (C.A. 5th, 1955).

⁹⁸ With respect to gains upon disposition of securities by one who is not a "dealer" in such securities, ordinary income treatment would constitute an important departure from existing law. But, after all, why should a dealer in enterprises receive a treatment more favorable than the one accorded the dealer in real estate, for instance?

⁹⁹ At least, if such a dealer's gains are to continue to be treated as capital gains, then his losses should only be treated as capital losses.

loans.¹⁰⁰ In the field of corporate financing, the courts can effectuate that limited purpose of the 1942 amendment only by interpreting the phrase, "trade or business," in the broadest manner, identifying trade or business as any lending to corporations for profit.¹⁰¹ In this respect, the decisions applying the "promoter" theory of the *Washburn-Foss* cases better implement the apparently limited purpose of the 1942 amendment than decisions following the approach of the *Smith* case.¹⁰²

However, it is not entirely clear that the 1942 Amendment was aimed only at intra-family gifts. In a recent Supreme Court decision,¹⁰³ Justice Brennan pointed out that intra-family gifts were only one *example* of the kind of deductions that the amendment was intended to disallow. According to the majority of the Court the amendment was "equally . . . suited to put non-business investments in the form of loans on a footing with other non-business investments."¹⁰⁴ Along with these indications that the 1942 Amendment was designed to do more than just disallow ordinary deduction to intra-family gifts, the opinion in the *Putnam* case declares that the amendment had a further purpose—raising of revenue.¹⁰⁵

The phrase "trade or business" was used in the bad debt section after that phrase had been interpreted in other provisions of the Code. As interpreted in the expense and loss sections, the investment of one's funds, by itself, did not constitute a "trade or business." The phrase "trade or business" was confined to "holding one's self out to others as engaged in the selling of goods or services."¹⁰⁶ Such a narrow meaning regarding "trade or business" as something more than transactions for profit, would disallow ordinary deduction for losses on some truly commercial loans to corporations,¹⁰⁷ along with disguised intra-family gifts.

¹⁰⁰ See p. 48 *supra*.

¹⁰¹ However, as regards loans to individuals an interpretation of "trade or business" as cointensive with loans for profit would reintroduce the difficulties of proof encountered by the Commissioner prior to the 1942 Amendment. Intra-family gifts could easily be disguised as loans which stipulate for the payment of interest (profit). Thus, it appears that the use of the phrase "trade or business" was an inept tool for preventing the deduction of intra-family gifts as bad debts, without also disallowing deduction for losses sustained in genuinely commercial transactions. If this was its sole purpose, the amendment should have been more narrowly worded to disallow ordinary deduction only for losses sustained on loans to members of the taxpayer's family.

¹⁰² See note 108 *infra* and accompanying text.

¹⁰³ *Putnam v. Commissioner*, 352 U.S. 82, 91 (1956).

¹⁰⁴ Thus, the Report by the Ways and Means Committee, 77th Cong., 2d Sess., H. Rep. 2333 states that "the determination [as to whether a loan results in a business debt] is substantially the same as that which is made for the purpose of ascertaining whether a loss from the type of transaction covered by [the loss section] is incurred in 'trade or business' . . ."

¹⁰⁵ *Putnam v. Commissioner*, 352 U.S. 82 (1956).

¹⁰⁶ See p. 46 *supra*.

¹⁰⁷ See note 52 *supra*.

Because of this ambiguity in meaning in the context which includes legislative history and congealed meaning, it is appropriate, according to the scientific theory of interpretation outlined in the previous section, to attribute relatively heavy weight to policy considerations in determining the appropriate meaning to be given the phrase "trade or business" in the bad debt section. At this level it becomes apparent that assigning a broad meaning to "trade or business" in the bad debt section would frustrate the three important tax policies of equalizing treatment of losses upon worthlessness of indebtedness with losses upon disposition, of treating all investment alike irrespective of paper-form, and of equalizing treatment of income with treatment of losses.¹⁰⁸ The interpretation of "trade or business" in the bad debt section which substantially implements these policies would regard only the loans of money-lenders of the *Smith* type as business loans.¹⁰⁹ The concept of "trade or business" enunciated by Judge Clark in the *Smith* case, rejecting the promoter theory, is the most appropriate interpretation of the phrase for purposes of the bad debt section. Thus, as the context of interpretation is broadened the appropriate meaning to be assigned to "trade or business" shifts from a narrow concept when only prior use of the phrase is considered to a broader concept when the context is expanded to include legislative history; and finally, back to a narrow concept when the context is further expanded to take policy into account.

If courts are reluctant to follow the *Smith* case, the achievement of these important tax policies will require legislative intervention codifying the *Smith* case. This can be done by amending Sections 166, 165 (g) and 1221. The "trade or business" qualification would be deleted from the bad debt section, and section 165 (g) would be broadened to include *all* evidences of indebtedness which are capital assets under Section 1221. Thus, a loss on the worthlessness of a loan will be allowed an ordinary deduction only if that loan qualifies as a business asset under Section 1221. That section would be amended to exclude any evidence of indebtedness acquired in the ordinary course of business from the definition of a capital asset.

Such amendments will not eliminate the problem of determining which debts are "trade or business" debts. However, shifting all such determinations to the capital asset section does assure uniform treatment of investments in corporations throughout the entire code. Since these amendments would synchronize Section 165 with Section 1221, any determination of what constitutes a business asset under Section 1221 would control the deduction allowed under Section 165. Furthermore, since the amended Section 165 would cover all evi-

¹⁰⁸ See pp. 54-58 *supra*.

¹⁰⁹ Under the *Smith* case a professional money lender receives ordinary loss treatment upon worthlessness as well as disposition of both his notes and bonds since § 165 (g) does not apply to investments which are not capital assets. In the hands of a professional money lender such investments can be inventory items held in the ordinary course of business. Similarly, gains (if any) on the disposition of paper representing indebtedness will be taxed at ordinary income rates. See the *Corn Products* case discussed in note 81 *supra*.

dences of indebtedness, as well as stock, a taxpayer's total investment in a corporation would be treated alike irrespective of its paper-form as equity capital or as debt.

Whether or not a taxpayer's investment is a business asset or a capital asset would turn on whether or not that investment is in his hands "stock in trade" under Section 1221 (1). Thus, the determination of whether or not an ordinary deduction should be allowed for a loss sustained on a worthless debt would depend on whether or not the loan is "stock in trade" in the hands of the taxpayer. These amendments would allow ordinary deductions for losses on loans suffered by professional money-lenders of the type required by the *Smith* case, as well as by professional dealers in businesses whose loans are only an integral part of their comprehensive program of investment in corporations, which are their stock in trade. On the other hand, losses sustained by the traditional promoter of the *Washburn* type, whose investments are not his "stock in trade," would get only capital loss treatment.

IV. CONCLUSION

Symbolic logic is not a miracle tool that will accomplish tasks of analysis that no other approach can duplicate. In some simple situations the English language can be just as effective a tool for analysis. However, as complexity increases, symbolic logic can do relatively effortlessly tasks that would be formidable projects if analyzed in a natural language. This is a difference that it is only reasonable to expect between language systems that are carefully constructed according to precise rules and languages that have evolved rather haphazardly with the growth of the community. It is in dealing with complex situations that symbolic logic will justify the time required for lawyers to train themselves in its use.

One of the first things that beginning students of symbolic logic learn is the propositional calculus. The system that is here called "systematic-pulverization" is merely an adaptation of propositional calculus into notation that is likely to be more familiar to lawyers. Even the elementary notions of symbolic logic in the propositional calculus prove to be an incisive tool for cutting through the ambiguity that characterizes so much of legal writing. We hope that this article has made apparent the relevance of modern logic as a tool for improving the communication skills of lawyers.

Practicing lawyers will find systematic-pulverization useful in their everyday work. It can serve as a convenient reminder that will help a draftsman to be clear when he intends to be clear. It will help assure that any ambiguity incorporated in written documents is not inadvertent, but intentional. Furthermore, systematic-pulverization can help spotlight ambiguity in documents that have been written by others in a natural language so that the advocate can be more fully aware of the possible range of interpretations that he can argue for his client. Certainly, such skills in handling words are valuable assets to lawyers.

With the transformation of legal communications into a more systematic form will come another advantage. Lawyers will be able to enlist the talents of computing machines in the analysis of some of their more complicated problems. Machines can handle some of the "logical" aspects of a problem and some of the routine information retrieval operations, freeing the lawyer to concentrate his attention on the more difficult aspect involving judgment, which is the part of a problem that actually requires human thinking.

It seems reasonable to assert that law schools will begin to do a more effective job in developing communication skills among law students whenever symbolic logic gains a place in the crowded curriculum of legal education. Furthermore, it seems reasonable to predict that it will gain such a place because of its relevance for drafting and interpretation, two of the basic skills of a lawyer. There has been much discussion about and effort devoted to integrating law and social science. We suggest that these efforts should be broadened to include inquiry by legal scholars into the startling developments that have occurred in recent years in modern logic and related fields.

In sum, we think that the precision and clarity provided by symbolic logic can help lawyers in their thinking:

The usefulness of modern logic lies not in its capacity to provide answers to the difficult questions arising in law, but in the extent to which it

- brings to light the precise issues which have to be faced in such questions
- permits these issues to be formulated in relatively precise and unambiguous terms
- marks the limits within which a situation is open for judicial choice and discretion.¹¹⁰

If even the elementary notions of propositional calculus can be so useful to lawyers, what will the complete apparatus of symbolic logic do? The answers to this question constitute the research task that lies ahead.¹¹¹

¹¹⁰ H. L. A. Hart has described common sense in these same words. Hart & Honoré, *Causation in the Law. I—A Survey of Common Sense Principles*, 72 L.Q. Rev. 58 (1956).

¹¹¹ The systems of logic that seem likely to prove most useful to lawyers are those called "modal" logics. It has recently been demonstrated that the logical systems called "deontic" logics, which deal with the prescriptive concepts of "obligation," "forbidden" and "permission," are equivalent to extensions of alethic modal logic systems. See Anderson, *The Formal Analysis of Normative Systems* (Tech. Rep. No. 2, Contract SAR/Nonr-609(16), Office of Naval Research, Group Psychology Branch, 1956).