1978

Normalized Legal Drafting and the Query Method

Layman E. Allen
University of Michigan Law School, laymanal@umich.edu

C. Rudy Engholm

Recommended Citation

NORMALIZED LEGAL DRAFTING AND THE QUERY METHOD

Layman E. Allen * and C. Rudy Engholm **

Normalized legal drafting is a mode of expressing ideas in statutes, regulations, contracts, and other legal documents in such a way that the syntax that relates the constituent propositions is simplified and standardized. This "normalization" results in documents that are easier to understand in the dual sense that they can be read faster and more accurately than corresponding documents that are not normalized. The *query method* is a technique for familiarizing learners with normalized drafting and providing practice in some of the easier aspects of doing it.

NORMALIZED LEGAL DRAFTING

Introduction

It is hard to exaggerate the importance of language in law. The legal profession holds itself out to the public as expert in the art of communication through language, and yet, it is well known that there has been an old and continuing problem of using language effectively to communicate the mandates of the legal system. There is little quarrel with the twin propositions: (1) legal drafting is important, and (2) it is badly done now and needs to be improved. (See Appendix A.) The virtue of language normalization and its accompanying servant, the query method, is that they provide the seeds for evolving both legal education and legal systems in the direction of more orderly expression of legal norms.

If the suggestion of a recent Comment in the UCLA Law Review (1976) [1] gets implemented by courts in attorney malpractice suits, there will be added impetus for improving the disorderly syntax that is one of the legal profession's most visible embarrassments. For those claiming expertise in the art of communication, the current handling of syntax in legal documents is a disgrace. The UCLA suggestion would increase the likelihood of legal liability of draftsmen for harm resulting from such ineptitude by having courts apply the *Doctrine of Res Ipsa Loquitur* to shift the burden of proof to the defendant in cases where it is alleged that negligent drafting of an imprecise document arises from a misuse of language or grammar.

According to this argument, with respect to the application of *Res Ipsa* there should not be any difference between the cases where the professional accused of malpractice is a physician and the professional accused is a lawyer; in both cases the doctrine should apply whenever the incident giving rise to the injury "is of such a nature that it can be said, in the light of past experience, that it probably was the result of negligence by someone and that the defendant is probably the person who is responsible."

* Professor of Law & Research Scientist, University of Michigan Law School.

** Research Attorney, University of Michigan.

1 *Attorney Malpractice in California: The Liability of a Lawyer Who Drafts An Imprecise Contract or Will*, 24 U.C.L.A.L.Rev. 422 (1976).

Whether the incentive for improving legal drafting arises from profession-
al pride and responsibility or such threats of legal liability, its appearance
should be welcomed. In the legislative area the very credibility of a legal
system is at stake by the manner in which its laws are expressed. This was
forcefully stated in the 1975 Renton Report by the British Committee on the
Preparation of Legislation:

> The more legislation there is and the more such legislation tries to deal
> with complex situations, the more likely it is that it will itself be com-
> plicated and therefore difficult to understand. It may be said that some
> degree of complexity and indeed obscurity may be the price we have to
> pay if society feels it necessary to satisfy the demands for more and
> yet more statute law. For our part we would point out that the price is
> a high one and we would urge that it should not be paid too readily. It
> is of fundamental importance in a free society that the law should be
> readily ascertainable and reasonably clear. To the extent that the law
> does not satisfy these conditions, the citizen is deprived of one of his
> basic rights and the law itself is brought into contempt.[2]

Ambiguity and complexity in written documents can be painlessly tolerated
in many contexts, but in "normative" prose such as that found in statutes,
contracts, and regulations, the social costs are frequently high for inadvertent
drafting lapses that cause uncertainty, unnecessary litigation, and expensive
legal research.

It will be useful to consider the different types of uncertainty of meaning
in what is written in a document. In the process, this will help clarify the
reference of various terms as used here to discuss some of the problems in
legal drafting. The word "ambiguity" is used here in a restricted sense, while
"uncertainty" is used more broadly to represent anything written in a sentence
which allows that sentence to be interpreted in more than one way. In the
sense intended here "uncertainty" is narrower than "imprecision" but broader
than "ambiguity". Uncertainty is one form of imprecision—namely, that
arising from what is written in the sentence. There is another form of im-
precision, however: that which is caused by what is not written. The rela-
tionships can be summarized as follows:
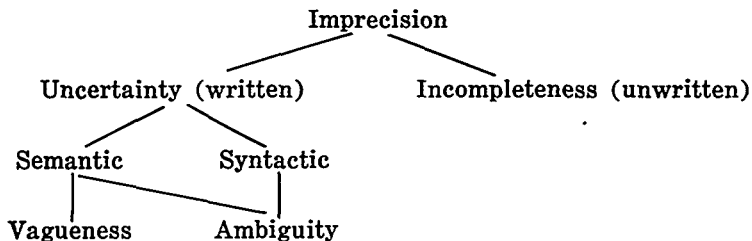
Semantic aspects of a sentence, as used here, refer to how the meaning of
the overall sentence is influenced by the range of meaning given to individual
words and phrases appearing in the sentence. These semantic aspects are in

[2] The Renton Report of a Committee on the Preparation of Legislation, C.M.N.D.
6053, ¶ 2.9 (London 1975).

contrast to the *syntactic* aspects of the sentence, which refer to how the meaning of the overall sentence is influenced by interpretation of the words that express relationships between the semantic words and phrases, i. e., interpretation of the syntactic words. For example, in the sentence

Persons who are doctors and lawyers qualify.

"Persons", "doctors", "lawyers", and "qualify" are semantic words; and the word "and" is a syntactic word. Whether a psychologist with a Ph.D. is a doctor for purposes of this sentence is a semantic question. On the other hand, whether a person who is a doctor, but is not a lawyer, qualifies by virtue of the sentence is a syntactic question. The answer depends upon whether the word "and" is interpreted as relating complete sentences (Alternative 1) or as relating parts of sentences (Alternative 2).

Alternative 1.   Persons who are lawyers [qualify] and [persons who are] doctors qualify.

Alternative 2.   Persons who are [both] (doctors and lawyers) qualify.

Vagueness is a semantic uncertainty about precisely where the boundary is with respect to what a term does and does not refer to. Frequently, but not always, associated with vagueness is *generality*. Often confused with vagueness, generality can be usefully distinguished from vagueness by viewing generality as an inclusion relation. For example, the term "penalty" is more general than the term "fine" and the term "imprisonment". Hence, so viewed, for a given concept that is not vague (relatively) there are more general concepts that both include the given concept and are also not vague, as well as other more general concepts that are vague—perhaps vague to the extent that it is uncertain whether the given concept is entirely included.

In Figure 1, the class of events that qualify as fines (F) or imprisonments (I) are included in the class that qualify as penalties (P). Everything included in area 1 or area 2 is also included in area 3.
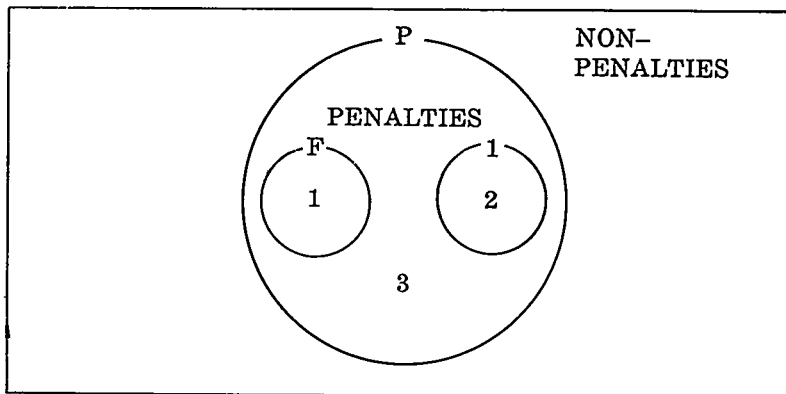
Figure 1—Generality without vagueness

In Figure 1, the boundary between penalties and nonpenalties is shown with no uncertainty as definitely being the line P. It is possible, and frequently occurs, that generality is achieved without being vague. However,

this example involving penalties might more appropriately be represented as being more vague as shown in figure 2, i. e., uncertain as to where between Pa and Pb the boundary is. The shaded area 4 represents the area of uncertainty.
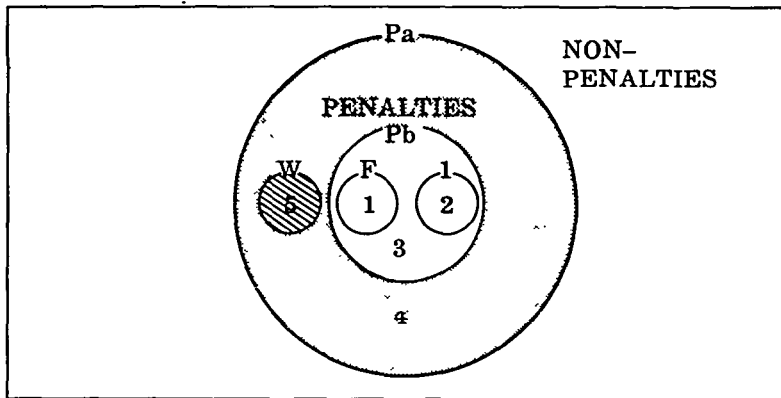
Figure 2—Generality with vagueness

In Figure 2 it is clear that it is uncertain as to whether or not the imposition of a sentence to write (W) a 30-page research paper for violation of a school rule is a penalty. If Pa is the boundary, then the writing assignment (W) is a penalty; the class of penalties includes everything in both areas 3 and 4, which includes area 5. On the other hand, if Pb is the boundary, then W is not a penalty; the class of penalties includes only everything in area 3, but not what is in area 4; so, it does not include area 5.

Ambiguity is uncertainty between relatively few (usually two) distinct alternatives.

Semantic Ambiguity Example:
It is uncertain whether the word "approval" refers to written approval, oral approval, or some other type of approval.
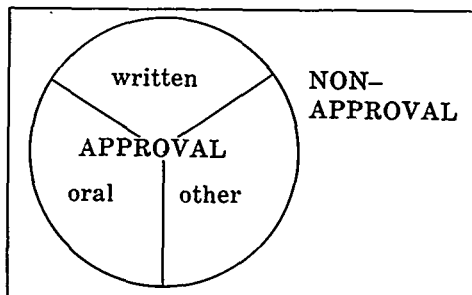
Syntactic Ambiguity Example:
The way in which B is related to A by virtue of the word "unless" is uncertain.

(1) *A unless B.*

Which is meant by (1)?
(1a) If not B, then A.
(1b) If and only if not B, then A.
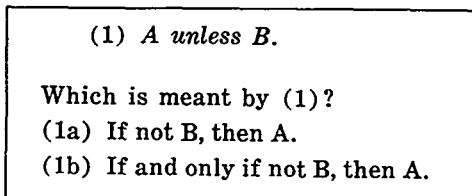
Although semantic generality and vagueness are the source of much un-
certainty and litigation, they are frequently useful and desirable tools of the
draftsman to express rules that will cover unforseen circumstances.   The un-
certainty from these sources is usually a deliberate matter, rather than as a
result of inadvertence.

The uncertainties arising from syntactic ambiguities tend, however, to be
due more to oversight than intentional choice.   Here in dealing with language
normalization, the focus is on this inadvertent type of uncertainty, the am-
biguity that arises from the way in which the meaning of a sentence is influ-
enced by the intended relationships between individual words and phrases
used in the sentence, as distinct from the semantic dimension—the way in
which the meaning of the sentence is influenced by the meaning of the in-
dividual words and phrases.

Language normalization is not a panacea for all drafting and interpreta-
tion problems.   Nor is it a means to turn lawyers into logicians.   Rather,
normalization is a systematic process for transforming implicit cues in a
statute (or contract or other legal document) into explicit cues, thereby allow-
ing the reader to focus more easily upon fundamental legal issues and policies
underlying the statute rather than to flounder in unnecessary intricacies of
comprehension.

Examples of Need for Normalization

Three examples will be considered of complex and (sometimes) ambiguous
legal syntax that would benefit from being transformed into normalized form.
A system of notation, helpful for communicating in abbreviated form the
normalizing process, will be described along with a summary of the nor-
malizing process.   And, finally, the normalized versions of the three ex-
amples will be presented.

Example 1.

The first example is drawn from a Louisiana case.   In State v. Hill, 245
La. 119, 157 So.2d 462 (1963), the Louisiana Supreme Court was faced
with interpreting the following statute:

> No person shall engage in or institute a local telephone call, conversation
> or conference of an anonymous nature and therein use obscene, profane,
> vulgar, lewd, lascivious or indecent language, suggestions or proposals of
> an obscene nature and threats of any kind whatsoever.

Hill was charged with unlawfully making an anonymous telephone call to
a woman during which he used obscene, profane, vulgar, lewd, lascivious and
indecent language and threats.   In response to a motion for a bill of particu-
lars, the state conceded that Hill made no specific threats other than those
inherent in words to the effect that he desired sexual intercourse with the
woman he called.   Subsequently, the district court dismissed the prosecution,
basing the dismissal on an interpretation of the statute that required both
obscene language *and* threats as distinct elements of the crime.

The state appealed to the Louisiana Supreme Court, contending that the district court's dismissal was based upon an erroneous interpretation of the statute. As originally enacted, the statute read:

No person shall engage in or institute a local telephone call, conversation or conference of an anonymous nature and therein use obscene, profane, vulgar, lewd, lascivious or indecent language, suggestions or proposals.

and the phrase "of an obscene nature and threats of any kind whatsoever" was added later. The prosecution argued that the "and" in the added phrase should be read disjunctively in order to fulfill the intent of the legislature in enlarging the scope of the statute. The intended effect would have been achieved by drafting the statute to read "No person shall X or Y". Therefore, it argued, the court should construe the "and" as an "or".

This same position can be expressed differently—and more persuasively— to achieve the same result. Instead of the straining argument to interpret the "and" as "or" to achieve the legislative intent, the more persuasive argument is to merely interpret "and" as a full-sentence connecting "and" rather than a sentence-part connecting "and".

Thus, where the statute formerly said, "No person shall X", it was amended to say, "No person shall X and Y". The intent of this language, it could have been argued, was to provide that "No person shall X, *and* no person shall Y", rather than as "No person shall (X *and* Y)". Represented diagramatically (using the actual language of the statute), the state's position, in effect, was (and could have actually been so argued):
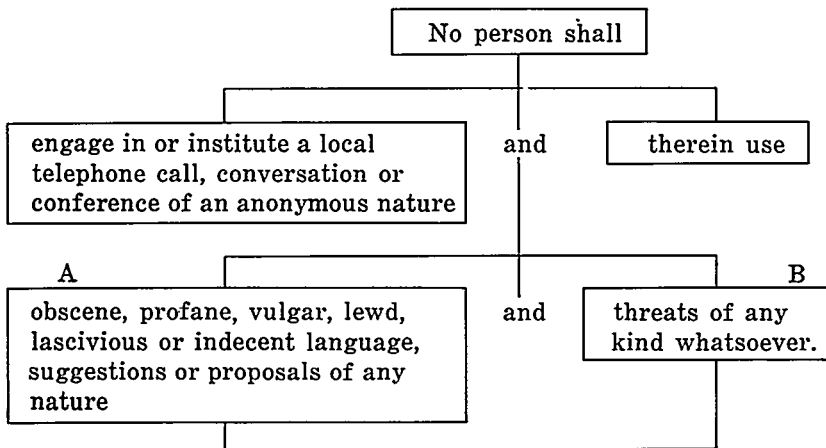
1. No person shall engage in or institute a local telephone call . . . and therein use A, and

2. No person shall engage in or institute a local telephone call . . . and therein use B.

Hill argued the opposite. He claimed that the legislature used the word "and" in order to restrict the scope of the statute. Where there was former- ly a single element to the crime, now it was necessary to show that the de-

fendant made threats in a telephone call in addition to using obscene, profane, etc., language.   Since he had failed to make threats in the telephone call upon which his prosecution was based, the district court had properly dismissed the charge.   Hill's position can also be represented by a diagram:

```
                          ┌─────────────────────┐
                          │  No person shall    │
                          └─────────────────────┘
       ┌──────────────────────────┼──────────────────────┐
┌──────────────────────────────┐  │        ┌──────────────────┐
│ engage in or institute a local│ and      │   therein use    │
│ telephone call, conversation or│         └──────────────────┘
│ conference of an anonymous nature│
└──────────────────────────────┘
    A                          ┌───────────┼──────────────┐ B
┌──────────────────────────────┐ │        ┌──────────────────┐
│ obscene, profane, vulgar, lewd,│ and     │ threats of any   │
│ lascivious or indecent language,│        │ kind whatsoever. │
│ suggestions or proposals of any │        └──────────────────┘
│ nature                          │
└──────────────────────────────┘
```
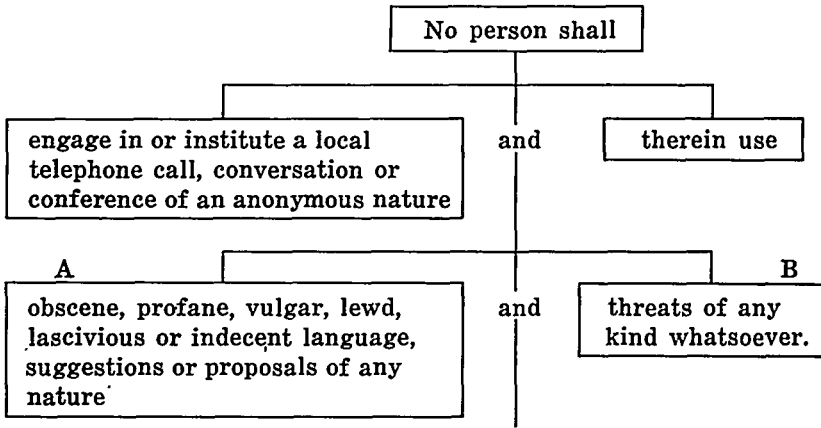
No person shall engage in or institute a local telephone call   .   .   . and therein use A and B.

Ultimately, the Louisiana Supreme Court resolved the case by interpreting the disputed "and" as an "or".   It might more discriminatingly have achieved the same result by interpreting the "and" as a full-sentence connecting "and", i. e.,

```
            ┊
     ┌──────┼──────┐
     A    and    B
            │
```
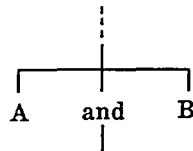
rather than a sentence-part connecting "and", i. e.,

```
            ┊
     ┌──────┼──────┐
     A    and    B
     └─────────────┘
```
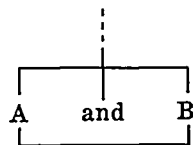
It is notable that in reaching the conclusion it did, the court ignored the common law maxim that criminal statutes are to be construed strictly.   It is fair to ask whether the ambiguity was deliberate.   Does deliberately incorporating this syntactic ambiguity (if it was done deliberately) in this Lou-

isiana criminal statute serve a useful policy goal? Or is it simply another example of inadvertent ambiguity that is easily overlooked when drafting statutory language?

Example 2.

Statutory or contractual language, although sometimes relatively free of syntactic ambiguity, is frequently unnecessarily complicated. If the purpose of carefully drafted language is to clearly communicate what conditions, when fulfilled, are sufficient to reach given results, then relating conditions and results in a simple and recognizable manner can help achieve that purpose. On the other hand, failure to do so can often render a straightforward idea virtually unintelligible. The second example is a contractual provision that details the conditions under which a life insurance policy offered by the Company will be reinstated:

> **REINSTATEMENT:** If any renewal premium be not paid within the time granted the Insured for payment, a subsequent acceptance of premium by the Company or by any agent duly authorized by the Company to accept such premium, without requiring in connection therewith an application for reinstatement, shall reinstate the policy; provided, however, that if the Company or such agent requires an application for reinstatement and issues a conditional receipt for the premium tendered, the policy will be reinstated upon approval of such application by the Company or, lacking such approval, upon the 45th day (30th day in New Mexico) following the date of such conditional receipt unless the Company has previously notified the Insured in writing of its disapproval of such application. The reinstated policy shall cover only loss resulting from such accidental injury as may be sustained after the date of reinstatement and loss due to such sickness as may begin more than 10 days after such date. In all other respects the Insured and the Company shall have the same rights thereunder as they had under the policy immediately before the due date of the defaulted premium, subject to any provisions endorsed hereon or attached hereto in connection with the reinstatement. Any premium accepted in connection with a reinstatement shall be applied to a period for which premium has not been previously paid, but not to any period more than 60 days prior to the date of reinstatement.

Consider this reinstatement provision with respect to a particular factual situation. Suppose that—

1. the insured fails to pay a premium within the required time, and

2. he later pays a premium by check which he mails to the Company, and

3. the Company normally requires an application for reinstatement in connection with such acceptance, and

4. the Company has not notified the insured in writing that the reinstatement is disapproved, and

5. two months have elapsed since the policyholder paid the premium.

According to the above provision, should the policy be reinstated? While it is possible to carefully read the present language and answer the question,

the task would be easier if the provision were drafted in normalized form. Readers may wish to test this for themselves by answering the question on the basis of the provision as drafted above before reading the normalized version on page 21.

Example 3.

The third example to illustrate the current state of legal draftsmanship in the handling of syntax is drawn from what may well be one of the most intensively scrutinized and carefully written legal documents in human history—namely, the United States Internal Revenue Code. Unfortunately, it is syntactically typical of the rest of the Code and of other legal drafting—just plain awful from a syntactic viewpoint. Section 354, which deals with the legal effects of exchanges of stock and securities in certain corporate reorganizations, states:

Sec. 354. EXCHANGES OF STOCK AND SECURITIES
IN CERTAIN REORGANIZATIONS

(a) General Rule.—

    (1) In General.—No gain or loss shall be recognized if stock or securities in a corporation a party to a reorganization are, in pursuance of the plan of reorganization, exchanged solely for stock or securities in such corporation or in another corporation a party to the reorganization.

    (2) Limitation.—Paragraph (1) shall not apply if—

        (A) the principal amount of any such securities received exceeds the principal amount of any such securities surrendered, or

        (B) any such securities are received and no such securities are surrendered.

    (3) Cross Reference.—For treatment of the exchange if any property is received which is not permitted to be received under this subsection (including an excess principal amount of securities received over securities surrendered), see § 356.

(b) Exception.—

    (1) In General.—Subsection (a) shall not apply to an exchange in pursuance of a plan of reorganization within the meaning of § 368(a)(1)(D), unless—

        (A) the corporation to which the assets are transferred acquires substantially all of the assets of the transferor of such assets; and,

        (B) the stock, securities, and other properties received by such transferor, as well as the other properties of such transferor, are distributed in pursuance of the plan of reorganization.

    (2) Cross Reference.—For special rules for certain exchanges in pursuance of plans of reorganization within the meaning of § 368(a)(1)(D), see § 355.

> (c) Certain Railroad Reorganizations.—Notwithstanding any other provisions of this subchapter, subsection (a)(1) (and so much of § 356 as relates to this section) shall apply with respect to a plan of reorganization (whether or not a reorganization within the meaning of § 368(a)) for a railroad approved by the Interstate Commerce Commission under § 77 of the Bankruptcy Act, or under § 20b of the Interstate Commerce Act, as being in the public interest.

Omitting the cross references and using T1, T2, . . . T9 to abbreviate the text that expresses the substantive content of the section, the words used for syntactic purposes to express relationships among the substantive parts are highlighted and summarized in Figure 3.

(a) General Rule.—
    (1) In General.—T1 if T2.
    (2) Limitation.—Paragraph (1) shall not apply if—
        (A) T3, or
        (B) T4.
(b) Exception.—
    (1) In General. Subsection (a) shall not apply to T5, unless—
        (A) T6; and
        (B) T7.
(c) Certain Railroad Reorganizations. Notwithstanding any other provisions of this subchapter, subsection (a)(1) and so much of section 356 as relates to this section) shall apply with respect to (whether or not T8) T9.

Figure 3

An analysis of the structure of § 354 indicates a rather simple general rule set forth in (a)(1) of the form:

> If a specified condition is fulfilled,
> then a certain legal result occurs.

More briefly:

> If S2, then S1.

where S1 and S2 are appropriate sentences constructed from the text parts T1 and T2. (Here the S1 and S2 are identical to the T1 and T2, but with some later parts there will be slight modifications required.) The general rule expressed by (a)(1) can also be represented diagramatically:

> >—S2——> S1.
> where "if" is represented by ">—" and "then", by "—>".

In (a)(2) there is a limitation expressed which qualifies the (a)(1) general rule. In effect, this limitation requires that two more conditions be fulfilled before result S1 occurs—that is:

    If S2 and S3 and S4, then S1.
where S3 and S4 represent sentences that are negations of the sentences represented by T3 and T4.

Diagramatically:

$$>-S2-S3-S4——>S1.$$
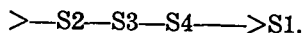
There is just one pathway for reaching result S1, and that is the pathway in which all three of the conditions expressed by S2, S3, and S4 are fulfilled. Hence, what is flatly stated in (a)(1) is really not so. A reader who has continued to read as far as (a)(2)—as every knowledgable tax lawyer would certainly do—sees that only (a)(1) as qualified by (a)(2) seems to be the case. But not for long will it seem so.

There is an exception encountered in subsection (b). The effect of the exception is to require that at least one of two more sets of conditions must be fulfilled before result S1 is reached by virtue of § 354—that is:

    If S2 and S3 and S4 and [S5 or (S6 and S7)], then S1.
Diagramatically:

$$>-S2-S3-S4-\begin{bmatrix} -S5- \\ \cdot \\ -S6-S7- \end{bmatrix}—>S1.$$
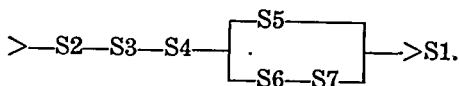
In interpreting such diagrams, a result to the right of an arrowhead occurs whenever there is a pathway extending from the arrowtail to the arrowhead that has all of its constituent conditions fulfilled.

Thus, in the above diagram there are two pathways, or sufficient sets of conditions, for reaching result S1:

    (1) S2 S3 S4 and S5, and
    (2) S2 S3 S4 S6 and S7.

Certainly, whenever a section of a statute includes an exception in one of its subsections to a general rule set forth in an earlier subsection, a competent attorney should take into account the exception in interpreting the statute. In this case subsection (b)(1) should be taken into account when interpreting the general rule set forth in subsection (a). But it is easier to say that it should be done, than in fact to accomplish it—at least, according to the evidence.

Sometimes in the Internal Revenue Code not all of the exceptions to a general rule will appear in the same section where the general rule appears.

They will, instead, be in other sections. *Usually,* when this occurs in the Internal Revenue Code, there will be a cross reference, such as (b)(3) in this case, which indicates that there is another exception to § 354(a) set forth in § 355. Such exceptions appearing in other sections should also be taken into account in interpreting the legal effect of the Internal Revenue Code. But if there is difficulty in competently taking into account exceptions that appear in the same section, will there be any less difficulty taking into account those that appear in other sections? If anything, the physical separation probably enhances the difficulty. However, it is not the cross-referenced exceptions that create the greatest problems. Rather, it is the exceptions in other sections that are not cross referenced that are the most annoying and troublesome.

The existence of such non-cross-referenced exceptions—and they do exist (See, for example, the absence of a cross reference in § 311 to the exception to 311(a) that is set forth in § 1245)—explains in part why tax lawyering has become such a highly-specialized practice. In order to reliably interpret one section of the Internal Revenue Code, a reader must have a familiarity with all of the rest of it, because there may be exceptions lurking elsewhere that are not cross referenced in the section being considered. The part cannot be known without knowing the whole, and the whole is a lengthy and highly complex document.

To the extent that the tax statutes exemplify the direction that the expression of statutory law is trending, this is indeed a most unfortunate state of affairs. In large measure the difficulty can be attributed to a lack of skill in the management of syntax in the expression of the statutes; and to the extent that this is the case, it is not only unfortunate, but also unnecessarily so.

Between the extremes of a complete lack of cross referencing and the rifle-shot referencing to a specific section, there are varying degrees of inexplicitness that add to the difficulty of knowing how the system is going to behave. An example appears in subsection 354(c) where all of the rest of subchapter C (93 full pages of dense and highly-complex text) is incorporated by reference and over-ridden in this context. Subsection (c), in effect, adds another pathway for reaching result S1.

The entire section in simplified (that is, normalized) form provides:


```
If
1.  S2, and

2.  a) 1.  S3, and
       2.  S4, and
       3.  a) S5, or
          b) 1.  S6, and
             2.  S7, or
    b) 1.  S8, and
       2.  S9,

then
3.  S1.
```
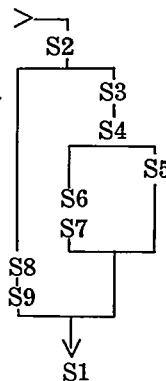
It is instructive to compare the simple syntax of this normalized version with the complex syntax of current drafting practice as exemplified in Figure 3. In this example of normalized drafting all of the conditions expressed by S2 through S9 are brought together and related to each other by "and's" and "or's" to form the antecedent of a simple "if-then" statement. In contrast, Figure 3 shows the text parts T1 through T9 of the present form of § 354 related by a complex network of interrelationships comprised of a general rule pared down by a limitation and an exception, which are, in turn limited by a further exception. The normalized version not only appears intuitively to be simpler than the present version, but when subjected to the empirical test of having law students work problems involving both versions, the normalized version results in faster (more than 20 percent on the average) and more accurate (more than 30 percent on the average) performance.

Sometimes the syntactic complexity of current drafting practices results in inadvertent ambiguities. There is one here in subsection 354(c). Although it is ambiguous from the actual text whether this subsection is meant to be an exception only to the exception of subsection (b) or an exception also to the limitation of subsection (a)(2), the regulations to § 354 clarify that it is an exception to both. If (c) had been an exception only to (b), the diagram (expressed in horizontal form) would be:

$$>\text{---S2---S3---S4---}\begin{array}{c} \text{---S5---} \\ \text{---S6---S7---} \\ \text{---S8---S9---} \end{array}>\text{S1.}$$
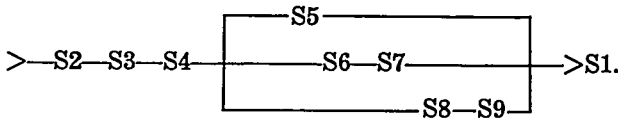
The full text of the normalized version of § 354 and its accompanying diagram are set forth in Figure 4.

**NORMALIZED VERSION OF SECTION 354
EXCHANGES OF STOCK AND SECURITIES IN CERTAIN
REORGANIZATIONS.**

>┐   If
S2......... 1. stock or securities in a corporation a party to a
                reorganization are, in pursuance of the plan of
                reorganization, exchanged solely for stock or se-
                curities in such corporation or in another corpo-
                ration a party to the reorganization, and
S3...... 2.   (a) 1. the principal amount of any such securi-
                       ties received does not exceed the princi-
                       pal amount of any such securities sur-
                       rendered, and
S4............ 2. it is not so that both (a) some such se-
                       curities are received and (b) no such se-
                       curities are surrendered, and
S5........ 3.   (a) the plan of reorganization is not one
                       within the meaning of section 368(a)
                       (1)(D), or
S6.......,........... (b) 1. the corporation to which the as-
                       sets are transferred acquires sub-
                       stantially all of the assets of the
                       transferor of such assets, and
S7................ .... 2. the stock, securities, and other
                       properties received by such trans-
                       feror, as well as the other proper-
                       ties of such transferor, are distrib-
                       uted in pursuance of the plan of
                       reorganization, or
S8.... ....(b) 1. whether or not the plan of reorganiza-
                       tion is one within the meaning of section
                       368(a), and
S9.... .... 2. the plan of reorganization is for a rail-
                       road and is aproved by the Interstate
                       Commerce Commission under section 77 of
                       the Bankruptcy Act, or under section 20b
                       of the Interstate Commerce Act, as being
                       in the public interest.
                then
S1......... 3. no gain or loss shall be recognized.

Figure 4

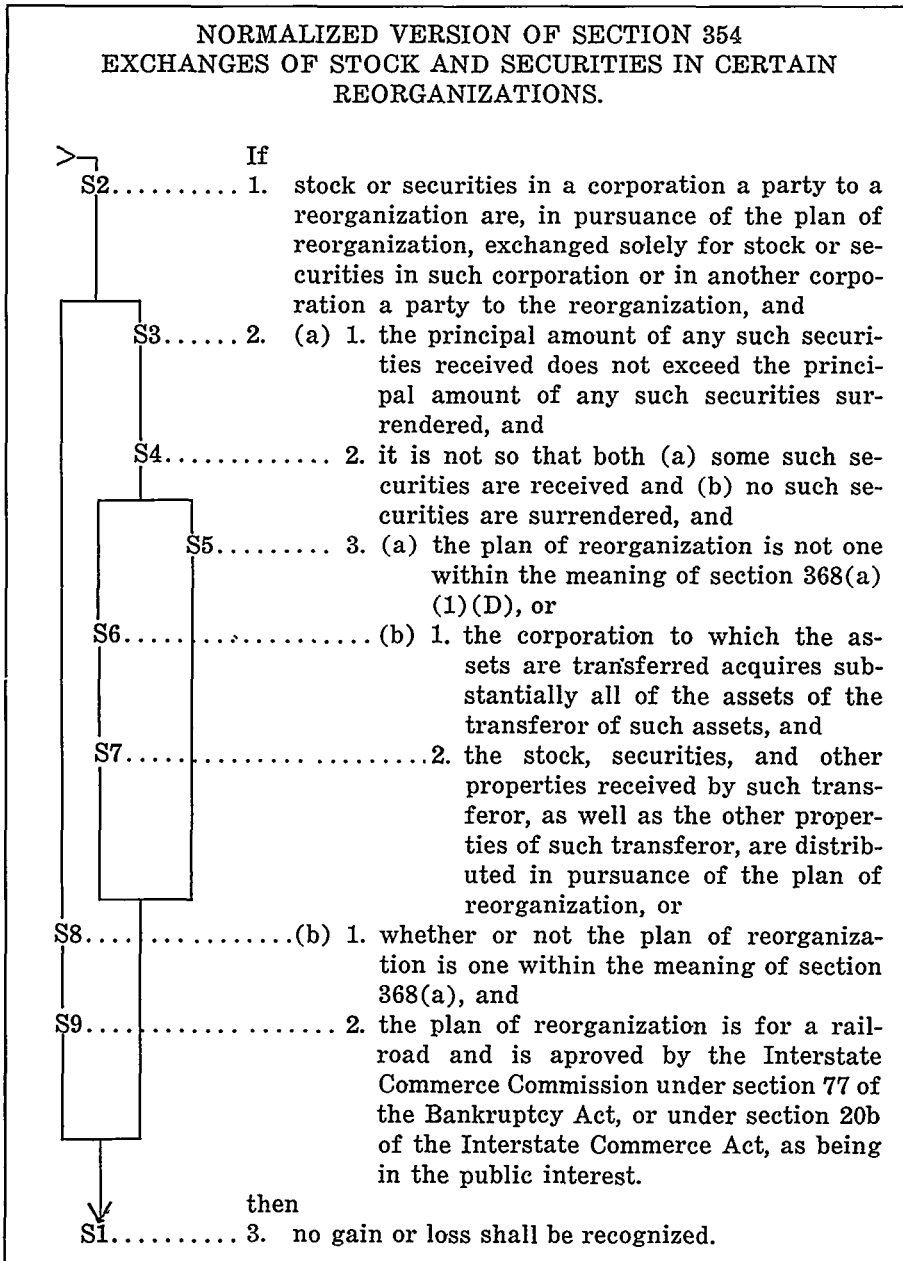*The Normalizing Process*

An alternative to the present rather disorganized and chaotic (from a
logical point of view) form of drafting is normalized drafting. Recognizing
that it is exceedingly difficult to talk about syntactic ambiguity and drafting
alternatives without a convenient notation, it is useful to specify one that will
enable statutory provisions to be clearly expressed and easily analyzed.

In a normalized statute, the logical relationships between simple sentences are expressed in three different (and redundant) ways: (1) in the text itself, (2) in the itemization (i. e., the alpha-numeric reference to the left of the text that is associated with each sentence), and (3) in an optional diagram to the left of the text in vertical form (or under it in horizontal form) as follows:

TEXT	DIAGRAM	ITEMIZATION
If ... then ... (If a, then b.)	>¬ a ↓ b	If 1. a, then 2. b.
... if ... (a, if b)	a ↑ b •	1. a if 2. b.
antecedent And (If a *and* b, then ...)	>¬ a b ↓ ...	If 1. a, and 2. b, then 3. ...
consequent And (If ..., then a *and* b.)	>¬ ... ↓ ⌈a ⌊b	If 1. ..., then 2. a, and 3. b.
Or (a *or* b ...)	⌐a ⌐ ⌊ b ⌊	1) a, or 2) b ...
If and only if ... (If and only if a, then b.)	>¬ â ↓ b	If and only if 1. a, then 2. b.
... if and only if (a if and only if b.)	a ↕ b •	1. a if and only if 2. b.
Not (It is not so that a ...)	⎮ Na ⎮	Na
Whether or not ... (Whether or not a ...)	⎮ Wa ⎮	Wa

Each diagram element (a, b . . .) corresponds to the sentence immediately to its right and is an abbreviation for that sentence. The diagrams assist in finding "pathways" or sufficient sets of conditions which, if fulfilled, lead to particular results. If a pathway can be traced from the "if" arrow tail (>—) or the "if and only if" arrow tail (>—<) to the "then" arrow head (—>), then a sufficient set of conditions has been fulfilled to reach the result(s) following the arrow head. Similarly, in a statement of the form "a if and only if b", tracing all the possible pathways from the double arrow (<—>) to the terminating dot (—•) shows all the possible sets of sufficient conditions which lead to result "a" being fulfilled.

These elementary forms can be combined to create more complex forms, and are capable of representing all possible logical relationships between any set of conditions and results. Several examples are given below:

TEXT	DIAGRAM	ITEMIZATION

EXAMPLE 1:

If a and b and
not c, then d.
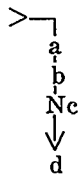
If
1. a, and
2. b, and
3. Nc,
then
4. d.

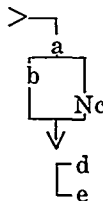**EXAMPLE 2:**

If a and (b or
not c), then d.
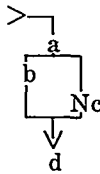
If
1. a, and
2. (A) b, or
   (B) Nc,
then
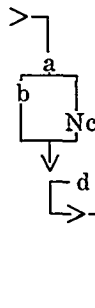3. d.

EXAMPLE 3:

If a and (b or
not c), then
(d and e).

If
1. a, and
2. (A) b, or
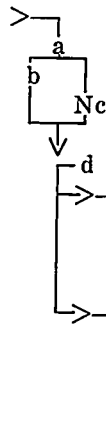   (B) Nc,
then
3. d, and
4. e.

EXAMPLE 4:

If a and (b or not c),
then
(d and if e then f).

If
1. a, and
2. (A) b, or
   (B) Nc,
then
3. d, and
4. if
   A. e,
   then
   B. f.

TEXT	DIAGRAM	ITEMIZATION

EXAMPLE 5:

If a and (b or not c)
then
(d and if e then f,
and if and only if g
then h).

If
1. a, and
2. (A) b, or
   (B) Nc,
   then
3. d, and
4. if
   A. e,
   then
   B. f, and
5. if and only if

   A. g,
   then
   B. h.

EXAMPLE 6:

If (if a, then b),
then c.
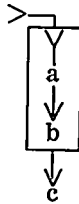
If
1. if
   A. a,
   then
   B. b,
   then
2. c.

Normalization gives legislators and lawyers a precise tool to state legal norms by unambiguously relating conditions to desired results. Yet, any desired flexibility can still be achieved by incorporating uncertainty into the semantic content of sentences through the individual words and phrases chosen.

However, when a law has already been enacted, any form of the statute other than the original enactment represents an interpretation. It is important that any representation which purports to correspond to a statute say neither more nor less than the statute itself does.

Another advantage of normalized statutes is that such statutes are easier to comprehend and use than their traditional prose counterparts. Although comparative research with attorneys is just now underway, preliminary experimental results indicate that normalized statutes can be understood faster and more accurately than statutes as they are currently drafted. In a series of experiments conducted by the senior author over a period of nine years at the University of Michigan Law School, groups of second and third-year students were given problems designed to measure comprehension of various sections of the Internal Revenue Code. Correct answers depended on the ability to logically relate relevant portions of the statutes rather than the ability to analogize or to make semantic judgments. Students using normalized versions of the statutes answered questions about 20 percent faster and about 30 percent more accurately than they did using the original text of the statutes.

The procedure for normalizing a statute summarized in Figure 5 provides an audit trail to allow users of a normalized statute to check for themselves whether the normalized version corresponds to the original version in the desired sense of asserting all that and only what the original asserts. Although it may seem that extraordinary and perhaps unnecessary emphasis is placed on precise notation, terminology, and changes to the present statute wording, such an emphasis is deliberate. Occasionally, changes may seem insignificant to the normalizer but have unintended consequences that cannot be easily detected without a procedure that requires explicit justification for every change to the original statute. Figure 5 shows the steps involved in normalizing a statute or other legal document.

A1. Mark the present version of the statute specifying:

    a. the sentence-words of the present version, i. e., the words that in their present form are, or will be transformed into, the constituent sentences of the normalized version, and

    b. the syntax words used in the present version to indicate the logical relationships between the sentences, and

    c. the words to be added or deleted to form the constituent sentences, and

    d. abbreviations for the sentence-words and the constituent sentences.

A2. Construct a syntax outline of the present version from its:
    a. sentence-words abbreviations, and
    b. syntax words.

A3. Construct one or more detailed marked versions (if necessary) specifying the justification for, and the manner in which, any sentences from the overall marked version are decomposed into separate constituent sentences.

A4. Construct intermediate versions of normalized-version diagrams from the constituent-sentence abbreviations.

A5. Construct the final version of the normalized-version diagram from the:
    a. constituent-sentence abbreviations, and
    b. intermediate normalized-version diagrams.

A6. Construct the final synthesized syntax outline of the normalized version from its:
    a. constituent-sentence abbreviations, and
    b. normalized syntax words, and
    c. the final normalized-version diagram.

A7. Construct the normalized version by replacing the constituent-sentence abbreviations of the normalized-version syntax outline by constituent sentences.

SIMPLIFIED DIAGRAM: Conversion of Present Statute Form
to Normalized Form

TEXT   OUTLINE   DIAGRAM

Present
Version

(A1)

Overall marked   —(A2)→   Present version
Version   Syntax Outline

(A3)

Detailed marked   - - - - - - - - - - - - - - - →(A4)
Version

▲ PRESENT VERSION   ▲

▼ NORMALIZED VERSION ▼

Intermediate nor-
malized version
diagram

Intermediate nor-
malized version   - - →(A5)
diagrams of other
sections

Final normalized   ←(A7)─   Final Synthesized   ←(A6)─   Final synthesized
Version   Syntax Outline   normalized version
                                                        diagram

(A1) — (A7) : Tasks of Analyst
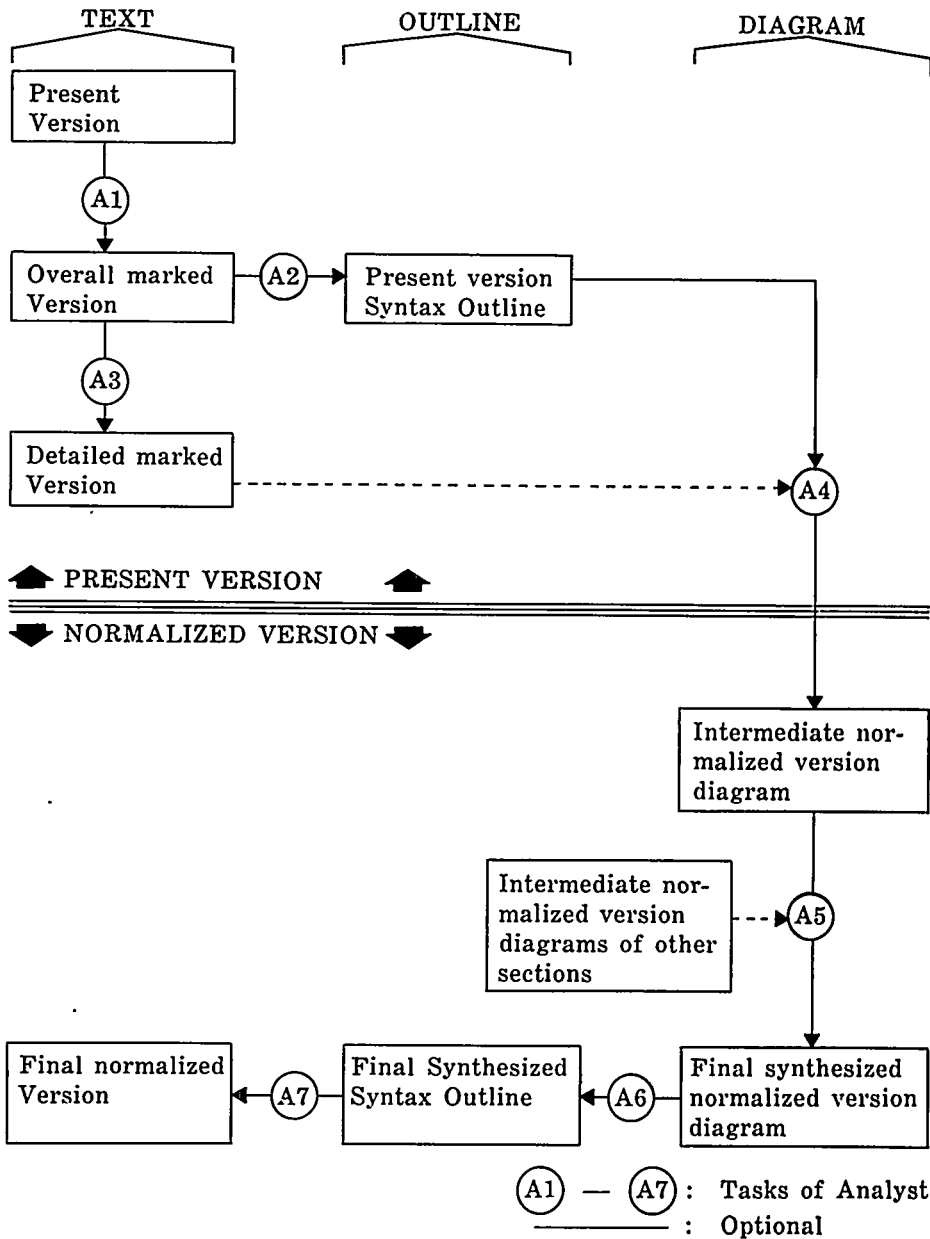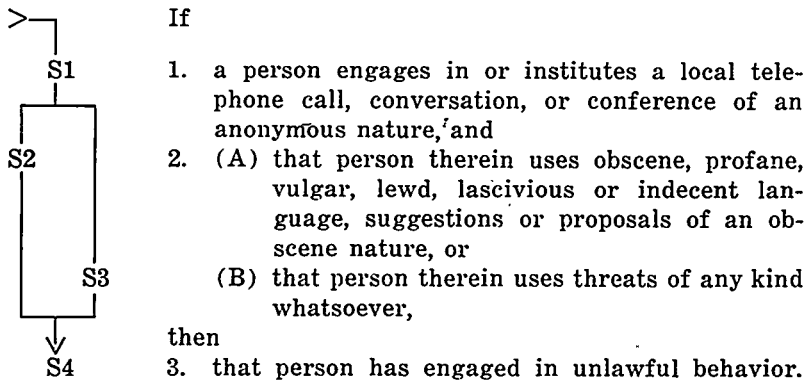──────────── : Optional

Figure 5

Normalized Examples

The results of this normalizing process are two ways of normalizing the Louisiana statute that regulates anonymous telephone conversations (1) by converting its ambiguous within-sentence syntax into unambiguous between-sentence syntax, and (2) by merely disambiguating the relevant aspects of its within-sentence syntax. From the viewpoint of facilitating the more extensive use of computers in helping to process and analyze legal prose, the first alternative is preferable. It could be written as follows:

If

1. a person engages in or institutes a local telephone call, conversation, or conference of an anonymous nature, and

2. (A) that person therein uses obscene, profane, vulgar, lewd, lascivious or indecent language, suggestions or proposals of an obscene nature, or

   (B) that person therein uses threats of any kind whatsoever,

then

3. that person has engaged in unlawful behavior.

The second alternative could be written:

No person shall engage in or institute a local telephone call, conversation or conference of an anonymous nature and therein use any of the following:

1. obscene, profane, vulgar, lewd, lascivious or indecent language, suggestions or proposals of an obscene nature, or

2. threats of any kind whatsoever.

Neither of these alternatives deals with the other ambiguities (other than the one that arose in the Hill case) in this statute. They are probably inadvertent ones, also, that should be resolved.

The normalization of the reinstatement provision of the insurance contract that results from the normalizing process is as follows:

In the factual situation described earlier, conditions S1, and S5 are clearly fulfilled. However, it is not clear whether condition S3 is fulfilled; although two months have expired since the policyholder paid the premium, there is no indication whether and when the conditional receipt was issued and dated. So, it is unclear whether the policy should be reinstated by virtue of this provision. More information is needed. It is more likely that a reader will notice this, if the provision is drafted in the simpler and more logically structured normalized form than in its present form.

Given the virtues of normalized legal drafting, what is a useful way to become familiar with this style of drafting? One answer to that question can be found in the query method.

If

S1............ 1. any renewal premium is not paid within the time granted the Insured for payment, and '

S2 ...|.......... 2. (A) there is a subsequent acceptance of premium by the Company or by any agent duly authorized by the Company to accept such premium, without requiring in connection therewith an application for reinstatement, or

S3 ....(B) 1. the Company or such agent
● requires an application for reinstatement, and
● issues a conditional receipt for the premium tendered, and

S4 ...|................. 2. (A) such application is approved by the Company, or

S5 ....(B) the Company has not before the 45th day (30th day in New Mexico) following the date of such conditional receipt notified the Insured in writing of its disapproval of such application,

then

S6 .... 3. the policy shall be reinstated, and

S7 .... 4. the reinstated policy shall cover only loss resulting from such accidental injury as may be sustained after the date of reinstatement and loss due to such sickness as may begin more than 10 days after such date, and

S8 .... 5. in all other respects the Insured and the Company shall have the same rights thereunder as they had under the policy immediately before the due date of the defaulted premium, subject to any provisions endorsed hereon or attached hereto in connection with the reinstatement, and

S9 .... 6. any premium accepted in connection with a reinstatement shall be applied to a period for which premium has not been previously paid, but not to any period more than 60 days prior to the date of reinstatement.

QUERY METHOD FOR LEARNING SYNTAX–DRAFTING

The query method can do for statutory analysis in legal education and practice what case method has done for case analysis. Query method can be used to direct attention to the policy considerations involved in statutes the way that case method can be used to direct attention to the policy considerations involved in cases. In the brief account of query method that follows,

first, some background to this proposed innovation in legal education is sketched to place it in context and describe some of its properties; then, a description of query method as a learning activity is presented; this is followed by a highly abbreviated example of its·use; and finally, the use of computer-assisted instruction (CAI) and simulations of CAI as modes for using query method are discussed and exemplified.

Background to Query Method

In the broad context of the total legal system, the effect of the introduction of query method in legal education will be in the direction of redressing the balance of power among legislative, executive, and judicial institutions. Where the power of legislatures have been drastically eroded by incursions of the other two branches, query method can be a force tending in the direction of enhancing legislative power.

In the more specific context of legal education, query method will tend to focus more attention upon the output of legislative institutions than upon the output of judicial institutions. When Christopher Columbus Langdell introduced case method into American legal education in the late Nineteenth Century, he really captured the fort with a method that has dominated the American law school terrain ever since. The relative neglect of statutes and the drafting of statutes in law school education can in considerable measure be attributed to the attractiveness of case method as a mode of instruction. With the advent of a statutory method that can compete in attractiveness (the aim of query method), perhaps some progress can be achieved in redressing the imbalance at the law school level in the attention given to legislative institutions relative to judicial institutions.

Wherever language and communication are involved in the legal system and legal education, the query method will require that attention be given to the syntactic dimension of communication, as well as to its semantics. At present legal education is almost solely preoccupied with the semantic dimension—another distortion in need of some rebalancing. Use of query method can help move the legal profession out of the embarrassing position of matching finely-honed semantic expertise with syntactic skill that rises hardly above that of a rank amateur.

Query method as a technique of instruction will provide learners with something interesting and challenging to do with statutes, something that has been badly needed for a long time. When done well, the analysis of statutes using query method calls for the same careful attention to policy issues and policy thinking that analysis of cases by the case method does—when done well!

Methodologically, the query method technique provides linkage to another fundamentally important field—namely, to the problem-solving methods of experimental science. With this technique there are provided opportunities on a legal problem to engage in and master the basic processes of the classical hypothetico-deductive approach to scientific method: learning to observe phenomena as carefully and as objectively as possible; learning to theorize—to explain phenomena as comprehensively as possible; and learning to investigate imaginatively—to ask good questions and to design good experiments.

Query method, when delivered by a computer and viewed as a computer-assisted instruction (CAI) program, represents a successful "break-through" in the efforts to reverse the roles of learner and computer in the traditional

CAI programs. In the traditional programs, the computer poses a problem, the learner responds, and the computer then branches to the appropriate next problem to be posed, depending on what response the learner has given. Sometimes it branches to a remedial loop; sometimes, to a new concept—whatever is appropriate in light of the understanding (or lack of it) that is revealed by the learner's responses. Efforts to reverse the roles, having the learner ask questions in freely discursive prose and having the computer then respond to the questioning, are limited by the "natural language" barrier. Computers have some, but very limited, capacity to process the semantic content of ordinary language in a manner that would be satisfactory for purposes of legal analysis. In the query method this barrier is circumvented by limiting the types of questions that can be asked and specifying precisely how the permitted ones are to be put. What, in effect, has been achieved in the query method is to isolate an educationally significant problem in law for which a computer can be programmed to respond to the specific types of permitted questions in such a way as to provide sufficient information to enable a learner to cope with the problem posed. To the extent that the proposed use of query method in law can be emulated in other fields, it may have significant implications for educational technology more generally.

Query method is an educational technique that emphasizes learning by doing on the part of every individual. It is also a highly-individualized learning technique that can help complement the emphasis upon learning in large groups that is characteristic of so much of the rest of legal education.

Finally, query method is a technique that probably can be implemented relatively inexpensively. It just does not require very much by way of resources in manpower and materials.

Description of Query Method as a Learning Activity

Query method is basically a question-asking activity, and the skill being developed is that of asking good questions. For problem-solving in general, in law and outside of it, asking good questions is one of man's most fundamental and effective problem-solving techniques. Learning to ask good questions is a skill to be treasured.

The context in which the question-asking occurs in the query method is one in which the learner is faced with one crucial aspect of the task of drafting a statute—namely, syntactically relating the relevant ideas. The learner is given a list of constituent sentences drawn from some actual statute with instructions to assemble them to form a statement that corresponds to the actual statute in the sense that it says all the statute says and no more than the statute says. In the statement formed, the sentences listed are to be related to each other by the logic words "and", "or", "not", "if", and "then". The general form of the assembled statement will be: If certain conditions are fulfilled, then specified results occur. In constructing the statement, the learner can impose conditions to make it difficult to get to certain legal results by the way that he or she (hereafter abbreviated "s/he") relates various of the listed sentences; alternatively, s/he can make it easy to get to those results by relating the required conditions in a different way. In deciding how to relate the listed sentences to correspond to what the statute says, the learner-analyst will need to consider the underlying policies involved in what the statute deals with and to make judgments about which policies are to be empha-

sized at the expense of which others, to what extent, and how. Thus, the thrust of query method is to compel learners to examine closely the language, the syntax, and the policies of a statute in the process of trying to reconstruct a simplified (i. e., "normalized") version of it.

By examining the list of sentences, the learner-analyst may be able at the outset to determine from the semantic content of those sentences alone what the statute says. However, most of the time the statutes that deserve selection for scrutiny by the query method will be sufficiently complex that s/he will need some help. That help will be provided by an information source that gives answers to four kinds of questions that the learner-analyst can ask. The information source may be a terminal linked to a computer, a touch-tone telephone serving as a terminal linked to a computer, a programmed pamphlet, or even another student. From the responses to the questions asked, the learner can obtain sufficient information to perform the task assigned. The objective is, with the least number of questions, to complete the task of constructing a statement that corresponds to the statute.

Since the statement to be constructed is to be in if-then form relating certain of the listed sentences that express conditions to certain others of the listed sentences that express results, the first subtask of the learner-analyst will be to classify the listed sentences into those that express conditions and those that express results. There are two kinds of questions that can be asked to help on this subtask. The first is called a *Specific* question; it asks: Does this listed sentence express a result? The second is called a *Global* question; it asks: Does this set of listed sentences express all of the results and only results? After s/he has the listed sentences classified into conditions and results, the learner-analyst may want to ask the third kind of question—the *Relational* question. It asks: Does this result occur, when this set of conditions is fulfilled? Finally, the learner-analyst can check whether the statement that s/he has formed on the basis of the data provided corresponds to the statute by asking the fourth kind of question—the *Ultimate* question. It asks: Is this (setting forth the logical structure that relates all of the listed sentences) a statement that corresponds to the statute? The responses to the first three kinds of questions will be either "Yes" or "No". However, if the learner-analyst's hypothesis is incorrect, the response to an Ultimate question will also provide some diagnostic information about how it is incorrect; it will indicate whether the hypothesis says more than the statute, less than the statute, or both more than and less than the statute.

The syntax-drafting problems posed in the query method tasks can vary widely in difficulty. The degree of difficulty will depend upon not only the number and complexity of the listed sentences but also upon which of five different levels of difficulty the problem has been formulated at. These five levels of difficulty are characterized in terms of the number of constituent sentences in the ultimate statement constructed and the content of those constituent sentences compared to the content of the sentences listed; the five levels are summarised in Table 1.

As the learner becomes more skillful in asking questions and in the syntax-drafting of statutes, s/he can move to more-difficult level problems to keep the task interesting and challenging. At each level the learner can ask as many or as few questions as s/he needs to ask. S/he may need much help— or very little; s/he gets whatever is needed. As skill in statutory analysis

Table 1

Level	Number	Content	Key
			Levels of Difficulty of Query Method Problems in Terms of Number of Constituent Sentences and the Content of Constituent Sentences Compared to Listed Sentences
1	$=$	A	$=$ The number of constituent sentences is equal to the number of listed sentences.
2	$=$	N	$>$ The number of constituent sentences is greater than the number of listed sentences.
3	$>$	N	
4	$>$	D	A Each of the constituent sentences is a listed sentence.
5	$>$	N or D (or both)	N Some of the constituent sentences are not listed; they are negates of listed sentences.
			D Some of the constituent sentences are not listed; they are descriptive parts of listed sentences that express results.

increases, less and less will be required. At the outset, the task to many lawyers and law students will seem formidable and challenging, but with the development of skills in syntactic processing to complement the already highly-refined semantic skills of lawyers, the learners exposed to query method will probably soon achieve an overall and comprehensive perspective and then easily handle such problems.

Example of Query Method for a Criminal Contempt Statute

The learner is provided with the following list of sentences and told that the problem is of difficulty level 4:

a. a witness intentionally refuses to comply with a subpoena issued pursuant to § 5003

b. a witness refuses to answer any question without justification under § 5008, including, but not limited to, refusal to answer on grounds of self-incrimination where protected by an order of immunity under § 4014

c. a witness intentionally responds to a question in an evasive manner

d. the witness may be held in criminal contempt

e. the witness may be fined not exceeding $10,000 or imprisoned not exceeding one year, or both

f. the witness subsequently testifies pursuant to the same or similar investigatory deposition order

g. that testimony may be considered by the court as a basis for reducing the sentence imposed

After reading the sentences carefully, s/he might ask the following series of questions.

QUESTION	RESPONSE	COMMENT
d?	Yes	Specific question: Does sentence d express a result?
deg?	Yes	Global question: Does the set of sentences, d e and g, express all of the results and only results?
a>d?	Yes	Relational question: Does result d occur when condition a is fulfilled?
b>d?	Yes	R: Does d occur when b is fulfilled?

```
    ┌a┐
>──┤b├──> ┌d    Your hypothesis says
    └c┘    └e   more than the stat-
                ute says.
└─>─f────>g
```
Ultimate question: Does this statement correspond to the statute?

a>e?	No	R: Does e occur when a is fulfilled?
ab>e	No	R: Does e occur when a and b are fulfilled?
abc>e?	No	R: Does e occur when a, b, and c are fulfilled?
aDd>e?	Yes	R: Does e occur when a and the descriptive part of d are fulfilled?

```
    ┌a┐
>──┤b├──>  ┌d
    └c┘     └>─Dd──>e
└─>─f──>g.
```
Your hypothesis says more than the statute says.

U: Does this statement correspond to the statute?

```
    ┌a┐
>──┤b├──>  ┌d
    └c┘     ├>─Dd──>e
            └>─f────>g.
```
Your hypothesis says more than the statute says.

U: Does this correspond to statute?

aDdf>g?	No	R: Does g occur when a, Dd, and f are fulfilled?
aDdDef>g?	Yes	R: Does g occur when a, Dd, De, and f are fulfilled?

```
    ┌a┐
>──┤b├──>  ┌d
    └c┘     └>─Dd──> ┌e
                     └>─De─f──>g
```
U: Does this correspond to the statute?

Congratulations!

This learner used one Specific question, one Global question, eight Relational questions, and four Ultimate questions in successfully constructing a normalized statement that corresponds to the statute. That normalized statement of the statute is shown in Figure 6.

Figure 6

If

(1) a witness intentionally refuses to comply with a subpoena issued pursuant to § 5003, or

(2) a witness refuses to answer any question without justification under § 5008, including, but not limited to, refusal to answer on grounds of self-incrimination where protected by an order of immunity under § 4014, or

(3) a witness intentionally responds to a question in an evasive manner,
then

(4) a. the witness may be held in criminal contempt, and

    b. if

        1. the witness is held in criminal contempt,
        then

        2. the witness may be fined not exceeding $10,000 or imprisoned not exceeding one year, or both, and

        3. if

            a. the witness is fined not exceeding $10,000 or imprisoned not exceeding one year, or both, and

            b. the witness subsequently testifies pursuant to the same or similar investigatory deposition order,
        then

            c. that testimony may be considered by the court as a basis for reducing the sentence imposed.

Query Method by Computer-Assisted Instruction and Simulations

Analysis of statutory syntax by the query method can be done in a variety of modes. Probably the most handy and inexpensive will be some variation of computer-assisted instruction or a simulation of it. Query method can also be used in an individualized manner with another student serving as an information source. Some will undoubtedly want to use it in the usual many-to-one classroom situation with the instructor providing the responses to probes by students; it can be used that way, too.

The computer software for putting query method problems into various sizes of computers has already been developed, and sample statutory provisions are available for demonstration. A master program in the Basic programming language has been developed to run on the Michigan Terminal System (MTS), the university's interactive time-sharing Amdahl 470V/6 installation, which is equivalent to the IBM 370–168. With this master program, a statutory provision that has been transformed into normalized form can be stored as a query method problem in the computer in just a few minutes. That

query method problem, can then be delivered by telephone to a terminal for instructional use any place in the world that is linked to telephone service in the United States. A second alternative currently being developed is an auxiliary program that will permit any touch-tone telephone to serve as a terminal for using the query method problems stored on MTS.

For the third alternative, the HP–65 programmable hand calculator (micro-computer), individual programs must be written for each statutory provision. A total of six sample programs have been developed for illustrative purposes to show how query method problems can be handled on this device. These programs can be duplicated in a few seconds on magnetic strips that cost only 40 cents each. The prototype for programs for the HP–65 has been developed, and it should be possible to develop programs for additional statutory provisions in two or three hours for each one. The ease of duplication will make it easy for cooperative instructors at different institutions to share programs that are developed. There is, of course, a limit to the size provision that can be dealt with in a manageable fashion on the HP–65, which is limited to 100-step programs. However, one provision that has been programmed for this device has 15 listed sentences. That number is probably about the outside limit that is manageable. However, that number is sufficient for most statutes that instructors will want to deal with by the query method.

The fourth alternative is an adaptation of the Instructional Math Play (IMP) Kits associated with the instructional game called EQUATIONS: The Game of Creative Mathematics. These adaptations are simulations of a computer as a data source, and they are in the form of printed pamphlets. These Statutory Analysis Pamphlets (SAPs), however, are even more limited than the programs on the HP–65 in terms of the size of statutory provision that is manageable in this form. For provisions that go up to difficulty level 3, the outside limit on the number of listed sentences is probably seven or eight. A provision with seven conditions would require a pamphlet of about 12 pages, and for each additional condition the number of pages required would increase by a factor of three.

One example of a SAP has been constructed; it is for § 2056(b)(1)(A)–(C) of the Internal Revenue Code and consists of a set of five sentences that has the following syntactic structure:
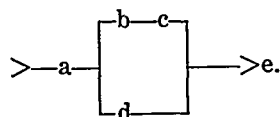
This example is included as Appendix B.

For the final two alternative modes of doing statutory analysis by the query method—the modes in which another person serves as the information source—all that the other person needs in order to be able to respond accurately is the diagram of the syntactic structure of the provision. Thus, for the criminal contempt provision exemplified on page 15, all the other student would need in order to respond to the question of the individual learner, and

all the instructor would need to respond to the questions of the class, would be the diagram:
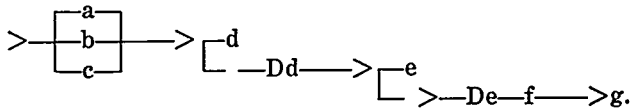
Finally, the technology for supporting small time-share systems on mini-computers is rapidly evolving. When ones are available of appropriate size and cost for computer-assisted instruction use in law schools, a program should be developed for delivering query method problems on such systems.

APPENDIX A

The importance of the skillful use of language in law generally (and in the drafting of statutes particularly) is clearly reflected in the writings of legal scholars and other commentators. A sampling gives the flavor and lends support to the pair of propositions: (1) legal drafting is important, and (2) it is now badly done and needs to be improved.

> The law is a profession of words . . .. The profession is properly more concerned with rights, obligations, and wrongs, and the incidental procedures . . .. But the main objectives suffer when the principal tool of the whole process is neglected. (Mellinkoff 1963, p. vii).

> Language is perhaps the greatest of all human inventions. Most people think of it merely as the chief means of communication, but it is much more than that; it is the chief medium of thought . . .. For lawyers, language has a special interest because it is the greatest instrument of social control . . . [W]ords are of central importance for the lawyer because they are, in a very particular way, the tools of his trade. (Williams 1945, p. 71).

> There is no doubt that the practice of law does as much as anything can to give a man an understanding of how words work and of what can be done with them. (Philbrick 1949, p. v).

> The most determined will in the lawgiver, the most benevolent and sagacious policy, and the most happy choice of and adaptation of means, may all, in the process of drawing up the law, be easily sacrificed to the incompetency of a draftsman. (Goode 1842).

> For the lawyer more than for most men, it is true that he who knows but cannot express what he knows might as well be ignorant . . . [I]n much of what a lawyer does, it is not enough that he knows the right answer; he must convince another lawyer, a judge or a jury, or explain to (and perhaps convince) a client. The knowledge or wisdom he has in his head is of no use to anyone unless he can communicate it to others. (Weihofen 1961, p. 1).

> Words are the principal tools of lawyers and judges, whether they like it or not. They are to us what the scalpel and insulin are to the doctor, or a theodolite to the civil engineer. (Chafee 1941, p. 382).

It is not the function of a draftsman either to originate or determine legislative policy. But the dividing line between policy and law, between form and substance, is not a sharp one, and the draftsman cannot escape being involved in policy discussions. Although the draftsman is not responsible for policy, he must nevertheless consider whether the prescribed policy is capable of implementation . . . The draftsman also makes a contribution in rounding out the policy and filling in the details. Legislative proposals usually come in the form of broad statements, leaving a multitude of minor details still to be worked out. Many of these details occur to the draftsman when he first examines his instructions, but there are always additional policy matters that cannot be known or foreseen until the drafting process is well under way. (Driedger 1956, p. xi).

Intellectually, the draftsman's skills are the highest in the practice of law. Judges at bottom need merely reach decisions, . . . negotiators and advocates need understand only as much of a situation as will gain a victory for their clients; counselors can be bags of wind . . . But the documents survive, and to draw them up well requires an extraordinary understanding of everything they are supposed to accomplish . . . Probably the greatest compliment a lawyer can receive from his profession (a compliment never publicized) is an assignment to draft a major law. (Mayer 1966, pp. 50–51).

It would be hard to exaggerate the importance of knowing how to prepare an adequate legal instrument. This is particularly true of statutes. Sound government depends upon legislation that says the right thing in the right way, in language that is as clear, simple, and accessible as possible. (Dickerson 1954, p. 3).

. . . [T]here are definite and positive goals to be attained by simpler statute-writing. There are definite techniques which will help in attaining these goals. When the goals and techniques are known to the profession, better laws will be written . . . Nearly everyone complains about the obscurity of statutes. Grumblings have been heard spasmodically ever since Jeremy Bentham gave his "six remedies for long-windedness" . . . (Conard 1947, p. 458).

It has been said that the things most commonly used by lawyers are air and language. One writer suggested that, sadly, nobody pays attention to either air or language unless it happens to stink . . . This should not be true of lawyers . . . (Cooper 1953, p. 2).

Although there is no disagreement about the fundamental importance of language in law, there is little satisfaction expressed (and much dissatisfaction does appear in print) about the written performances of lawyers. In the eyes of some critics the profession's use of language is so inept as to give rise to suspicions about motives and competency.

Almost all legal sentences, whether they appear in judges' opinions, written statutes, or ordinary bills of sale, have a way of reading as though they had been translated from the German by someone with a rather meager knowledge of English. Invariably they are long. Invariably they are awkward . . . [T]he language of The Law seems almost

designed to confuse and muddle the ideas it purports to convey. That quality of legal language can itself be useful only if the ideas themselves are so confused and muddled and empty that an attempt to express those ideas in clear, precise language would betray their true nature. In that case muddiness of expression can serve very nicely to conceal muddiness of thought. And no segment of the English language in use today is so muddy, so confusing, so hard to pin down to its supposed meaning as the language of The Law. It ranges only from the ambiguous to the completely incomprehensible. (Rodell 1939, pp. 185–186).

There is widespread consensus that legal writing can stand some improvement and that something needs to be done about it.

> . . . [T]he laws which have found their various ways into the statute books of English-speaking countries . . . are spoken of as disgraceful, unworkmanlike, defective, unintelligible, abounding in errors, ill-penned, inadequate, loosely-worded, depraved in style, peculiar absurdities, mischievous, baneful in influence—and besides, in their making "technical skill is often below the mark." . . . [T]hey are uncertain, confusing, obscure, ill-expressed, ambiguous, overbulky, redundant, entangled, unsteady, disorderly, complex, to say nothing of being "uncognoscible." (Guide to Legislative Drafting in Arizona 1941, p. 9).

> Legal drafting is like the weather: often talked about, but seldom reformed. Many lawyers seem only dimly aware that the profession is falling far short of its potential. (Stason 1965).

> Actually, the legal profession is falling far below its real potentialities, not only in the highly specialized field of legislative drafting, but in the general field (which touches every lawyer) of preparing contracts, wills, leases, and conveyances. (Dickerson 1954, p. 4).

> This study began with the hypothesis that many laws are inadequate for the purposes for which they were designed, and that most deficiencies result from the use of outmoded methods of drafting, screening and processing legislation. Poor draftsmanship can cause confusion in many areas: it may cloud the purpose and intent of the proposed legislation before enactment; it may encourage misinterpretation and misapplication by the bar; and, it may affect both judicial and executive implementation, of the law at national, state and local levels. (American Bar Foundation Project 1972, p. 708).

> · Unfortunately, many lawyers have tended not only to downgrade important aspects of drafting but to think of themselves as individually accomplished in this respect. (Dickerson 1965, p. 3).

> The law needs a literature on how to write laws that is not contained in present treatises on statutory interpretation. (Conard 1947, p. 481).

With such strong expressions of the shortcomings of the legal profession in such a fundamental aspect of its work as its use of language, we really ought to try to do something about it.

APPENDIX B

a. on the lapse of time, on the occurrence of an event or contingency or on the failure of an event or contingency to occur, an interest passing to the surviving spouse will terminate or fail

b. an interest in such property passes or has passed (for less than an adequate and full consideration in money or money's worth) from the decedent to any person other than such surviving spouse (or the estate of such spouse)

c. by reason of such passing such person (or his heirs or assigns) may possess or enjoy any part of such property after such termination or failure of the interest so passing to the surviving spouse

d. such interest is to be acquired for the surviving spouse, pursuant to the directions of the decedent, by his executor or by the trustee of a trust

e. no deduction shall be allowed under this section with respect to such interest

QUERY METHOD RESPONSE MANUAL: STATUTE 2

Q1 Specific Questions

Q2 Global Questions

Sentences	a	b	c	d	e
Coded Responses	Be	Bl	Bs	Bz	Dg

Sets of Sentences	Coded Responses
a	Dn
ab	Du
abc	Fb
abcd	Fi
abcde	Fp
abce	Fw
abd	Hd
abde	Hk
abe	Hr
ac	Hy
acd	Jf
acde	Jm
ace	Jt
ad	La
ade	Lh
ae	Lo
b	Lv
bc	Nc
bcd	Nj
bcde	Nq
bce	Nx
bd	Pe
bde	Pl
be	Ps
c	Pz
cd	Rg
cde	Rn
ce	Ru
d	Tb
de	Ti
e	Tp

Decoding Table   p = NO   q = YES

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A			q			p				p			p				q		p					p		
B	p			p	p		p			p	p							p	p			p			p	p
C	p				q			q					p					p				p				p
D			p			p	q			p			p	p			p			p	p			p		
E			p				q			p				p				p			p			p		
F	p	p			p				p		p	p					p	p		p			p	p		p
G		q			p				p			p				q			p			p				p
H				p			p			p			p				p		p			p				
I				p			p				q		p				p			p				p		
J		p				p			p			p			p				p			p				
K		p					q			p			p				q			p						
L	p			p				p			p				p			p			p			p		
M	p			p			p			p					p			p				p			p	
N			p			p					p		p			p			p				p			
O			p			p			p			p			p			p			p				
P	p				p		p				p		p					p		p				p		
Q	p			p			p			p			p						p			p				p
R		q			p		p			p			p				p			p						
S		p			p		p			p			p				p			p				p		
T	p			p				p			p		q			p				p				p		
U	p			p				p			p		p			p			p				p			
V			q		p			p		p			p				p		p				p			
W		p			p		p			p			p				p		p				p			
X	p				p		p		p				p			p			p			p				
Y	p				p		p			p			p			p			p			p				
Z	p			p				p			p				q			p				q			p	

Q3.1 Number of Lean Pathways Questions

# of Lean Pathways	1	2	3	4	5	6	7	8
Coded Responses	Tw	Vd	Vk	Vr	Vy	Xf	Xm	Xt

Q3 Relational Questions   Q4 Ultimate Questions

Pathways	Q3 Results e	Q4 Lean	Pathways	Q3 Results e	Q4 Lean	Pathways	Q3 Results e	Q4 Lean
a	Za	Po	ax	Mh	Cv	b	Bo	Sc
ab	Zh	Pv	axb	Mo	Ec	bc	Bv	Sj
abc	Zo	Rc	axbc	Mv	Ej	bcd	Dc	Sq
abcd	Zv	Rj	axbcd	Oc	Eq	bcdx	Dj	Sx
abcdx	Ac	Rq	axbcdx	Oj	Ex	bcx	Dq	Ue
abcx	Aj	Rx	axbcx	Oq	Ge	bcxd	Dx	Ul
abcxd	Aq	Te	axbcxd	Ox	Gl	bcxdx	Fe	Us
abcxdx	Ax	Tl	axbcxdx	Qe	Gs	bd	Fl	Uz
abd	Ce	Ts	axbd	Ql	Gz	bdx	Fs	Wg
abdx	Cl	Tz	axbdx	Qs	Ig	bx	Fz	Wn
abx	Cs	Vg	axbx	Qz	In	bxc	Hg	Wu
abxc	Cz	Vn	axbxc	Sg	Iu	bxcd	Hn	Yb
abxcd	Eg	Vu	axbxcd	Sn	Kb	bxcdx	Hu	Yi
abxcdx	En	Xb	axbxcdx	Su	Ki	bxcx	Jb	Yp
abxcx	Eu	Xi	axbxcx	Ub	Kp	bxcxd	Ji	Yw
abxcxd	Gb	Xp	axbxcxd	Ui	Kw	bxcxdx	Jp	Bd
abxcxdx	Gi	Xw	axbxcxdx	Up	Md	bxd	Jw	Bk
abxd	Gp	Zd	axbxd	Uw	Mk	bxdx	Ld	Br
abxdx	Gw	Zk	axbxdx	Wd	Mr	c	Lk	By
ac	Id	Zr	axc	Wk	My	cd	Lr	Df
acd	Ik	Zy	axcd	Wr	Of	cdx	Ly	Dm
acdx	Ir	Af	axcdx	Wy	Om	cx	Nf	Dt
acx	Iy	Am	axcx	Yf	Ot	cxd	Nm	Fa
acxd	Kf	At	axcxd	Ym	Qa	cxdx	Nt	Fh
acxdx	Km	Ca	axcxdx	Yt	Qh	d	Pa	Fo
ad	Kt	Ch	axd	Ba	Qo	dx	Ph	Fv
adx	Ma	Co	axdx	Bh	Qv			