# Measuring Plain English: <br> Using Reader Expectations 

to Redefine Readability

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# Using Reader Expectations to Redefine Readability 

## The Question

Is the question of whether English is plainly written, that is, readable by a large-ranging public, to be resolved merely by counting a the number of words, syllables, and other minute units of discourse in the text - as the readability tests presently in use by two thirds of the United States require? Or is it instead the question of whether or not a reader understands what is being said - a question I argue is best answered by subjecting the writing to the principles of my Reader Expectation Approach to the English language (REA)? As support for the latter, I draw upon my experience as an expert witness in a high stakes class action law suit, filed on behalf of 75,000 employees, the resolution of which was to be decided on the basis of whether the defendant's notices to the class were written in Plain English. After more than two years of litigation,
when confronted with my REA arguments, the plaintiffs' lawyers withdrew their lawsuit, with prejudice, and without asking the defendants for a settlement. When asked by the trial judge why they had done this, the plaintiffs' lead attorney admitted, "We can't beat his argument." That is the proof of this particular pudding.

The Problem

The Plain English movement, active now for more than half a century in the United States, has done a great deal of good work. ${ }^{1} 37$ of the 50

States have some form of legislation that attempts to require Plain English readability for legal documents intended to be read and used by the general public - documents like insurance policies, lay-away plans, and

[^0]rental agreements. Enforcability of these laws, however, depends on how a court is required or requested to define "Plain English."

As I will argue here, despite the good these statutes have done, none of them has found an adequate way of determining readability. This causes serious difficulties in cases which involve complex material and sophisticated vocabulary. Those also tend to be the cases that involve the greatest sums of money.

The readability formulae relied on by most Plain English statutes have been in common use now for more than half a century. These formulae usually function by counting the numbers of words, syllables, clauses, and multi-syllabic words in a document, by calculating ratios (words per sentence, syllables per word), and then by using these statistics to draw quantitative lines in the sand. These formulae have proven fully adequate to assess whether a given selection of readings would be more appropriate for use in the sixth grade or the eighth grade; but they fail dramatically
when applied to sophisticated prose that attempts to deal with complex matters. The latter will usually be the case with any suit about language that makes its way to a court of law.

The solution I am offering, REA, is based on discoveries I have made over 40 years of consultant work with various kinds of professionals, concerning how readers of English actually go about the act of interpretation - the act of making sense of words on a page. In the real world, the important person, where writing is concerned, is not the writer; it is the reader. The bottom line question concerning the quality of a piece of writing is simply this: Did the reader get delivery of what the writer was trying to send? If the answer is "yes," the writing was good enough; if "no," it wasn't. This cannot be assessed by counting words and syllables - no matter how scientific a given readability formula might appear, with its complicated formulae and its functional numbers extending to three decimal places. We cannot rely on counting things to duplicate or even to approximate a reader's experience of trying to
interpret a text. To do that, we must come to understand how readers go about reading. REA offers a great many insights into that process.

REA is no longer theory. It has a track record of success: It has been enthusiastically received by a large number of law firms, corporate legal departments, scientific research institutions, academic institutions, and government agencies in the U.S., Canada, Argentina, The Netherlands, Germany, Switzerland, Turkey, Singapore, and Japan. It has been recognized by the Legal Writing Institute, through bestowing on me its 2011 lifetime achievement Golden Pen Award. It is used by the government of Canada in the drafting of all its federal legislation. My article on REA (with Dr. Judith Swan), "The Science of Scientific Writing," was chosen by American Scientist as one of the 36 "Classic Articles" in its 100 years of publication. ${ }^{2}$ It currently leads that journal's citation index. And in the present article, we will see it winning out over all the readability formulae embraced by 34 States in a major class action

[^1]suit against one of the country's major corporations.

This essay unfolds in three parts:
A. An investigation of why the current Plain English statutes are inadequate to determine readability;
B. A summary of the relevant parts of the Reader Expectation Approach; and
C. An exploration of the way REA was used to estimate the readability of documents involved in two similar large class action suits.
A. The Inadequacy of the Current Plain English Statutes to Define

## Readability

We have a federal law that deals with this issue - the Plain Writing Act of 2010. It offers a simple and succinct definition:

The term 'plain writing' means writing that is clear, concise, wellorganized, and follows other best practices appropriate to the subject or field and intended audience.

The lack of specificity in that sentence necessarily raises the question as to what is meant by "other best practices." It seems the term refers primarily to the Flesch Readability formula and the many formulae similar to it, on which 34 of the 37 state Plain English statutes rely.

The statutes that try to control the language by restricting the number of words per sentence or the number of syllables per word, as the Flesch test
requires, tend to have one flaw in common: They rely on a falsely based dichotomy - labeling certain characteristics of writing categorically as either "good" or "bad". This dichotomy is inherited from pedagogical practices dating back to $18^{\text {th }}$ century Scotland and continued to our own time. Such rigidity cannot accord well with the natural plasticity of language. Neither a word, phrase, sentence, nor paragraph can be appropriately judged as good or bad by itself but only in a given context.

Those that embrace the digital nature of the "good/bad" dichotomy tend to confuse the symptoms of the disease with its causes. They look at examples they consider to be bad writing, and usually deem them to be (1) overly long, (2) filled with difficult verbiage, and (3) riddled with passive constructions; then they conclude that those symptoms must be the causes. Shorten the sentences, discard the jargon, and make the passive active; then Plain English will emerge. But symptoms are usually the results of a disease, not its causes. The symptoms of a common cold may well be coughing and sneezing; but it would be inadequate to
conclude that if the patients would simply avoid coughing and sneezing, they would never develop a cold.

Plain English legislators, for lack of knowing anything more digitally certain to do, have identified a number of supposed symptoms of bad writing and have treated them as if they were the causes. To make matters worse, they have chosen the wrong symptoms. And to make matters significantly yet worse, they have ignored altogether the effects that context has on the meaning of any unit of discourse. Let us examine three State statutes - New York, Connecticut, and Florida (with a glance at Pennsylvania) - that adequately represent the entire spectrum, from the general to the specific, of the methods of defining Plain English now in use across the country.

## 1. New York: N.Y. Gen Oblig. §5-702

This law, activated in 1978, applies to written agreements for the leasing of residential space or personal property. Its stipulation of the requirements concerning Plain English is brevity itself. I quote the statement in full. Such documents must be

1. Written in a clear and coherent manner using words with common and everyday meanings;
2. Appropriately divided and captioned by its various sections.

That's it: 22 words. These are preceded by 68 words that describe which documents are effected and by 207 words that describe both what happens if you do not comply and certain circumstances under which this law does not apply.

This is one way of trying to handle the problem. Five concerns are stipulated, the first three of which have to do primarily with readers and the other two primarily with documents: The "manner" of the prose must be both (1) "clear" and (2) "coherent" to readers; the words must be (3) "common and everyday"; and the documents must be (4) "divided" and (5) "captioned."

Though this may be minimalist, it is not silly. It invokes the spirit of Mr. Justice Potter Stewart: Prose that is not clear and coherent? We know it when we see it. And we don't want to see it. And, in addition, we like white space and captions.

This assumes that obvious offenders will be obvious to spot. Conversely, it should be equally obvious to spot attempts on the part of caring and skillful writers to ensure that readers will understand what they are reading. In between those two there may be many a hard case; but it would take at least a treatise to be any more specific than this. That is
what this statute seems to be saying - or at least that for which it is willing to settle. At the very least, this should be better than nothing.

But it is not. In any Plain English issue contestable enough to reach a courtroom, the defendants will claim the prose is "clear and coherent," while the plaintiffs will claim it is not. Surely the case should not be decided on the basis of how much white space and how many captions the document contains. As soon as there is such a controversy, the New York statue is no longer of help. The spirit of Mr. Justice Stewart will be summoned as a witness by both sides.
2. Connecticut: Conn. Gen. Stat. § 42-152

Connecticut's Plain English law for consumer contracts tries hard to be even-handed. It allows the author/defendant a choice of two definitions:

The first cites the symptoms by name; the second calculates them by
numbers. The former includes the following in its list of characteristics of Plain English:
-- short sentence and paragraphs
-- "everyday words"
-- the use of personal pronouns
-- "simple and active verb forms"
-- "type of readable size"
-- ink which contrasts with the paper
-- section headings, subdivisions, and boldface captions
-- spacing between paragraphs and sections; borders
-- "It is written and organized in a clear and coherent manner."

This list sounds familiar: Most of us have been taught to believe that these are the opposites of the characteristics of bad writing. But, one might ask, how short are "short sentences?" How many days a week must one use a word for it to become an "everyday word"? How small a font can still be
considered "readable"? The legislators in Connecticut must have been debating these issues, since their alternative definition tries to resolve all definitional problems with markedly precise statistics. The document in question will qualify as "Plain English" only"if it fully meets all of the following tests." (Emphasis supplied.) Remember those words "fully" and "all." Here are some of the items on Connecticut's list, with which they have drawn lines in the linguistic sand:
(1) The average number of words per sentence must be less than 22; and
(2) No sentence in the contract can exceed 50 words; and
(3) The average number of words per paragraph must be less than 75; and
(4) No paragraph in the contract can exceed 150 words; and
(5) The average number of syllables per word must be less than 1.55.

A failure to meet any one of these five constitutes a failure for the document as a whole.

Such a tidal wave of specificity surely must give us hope that someone from or hired by Connecticut has actually discovered how to determine readability in documents. Personally, I find it breath-taking. With all the writing and reading I have done in my life, I have never once considered whether the prose I was producing or consuming exceeded an average of 1.55 syllables per word. To my surprise, when I investigated this oddly precise statistic by a random selection of texts, I found it did indeed seem to be something of a dividing line - but not so much between good prose and bad, nor between the readable and the unreadable. Instead, it tended to distinguish between the simple and the sophisticated. Complex matters often require a greater number of multi-syllabic words. (The syllables-per-word ratio of the previous sentence is 2.0 - way above the allowable 1.55. Surprisingly, if you substitute "long" for "multi-syllabic," it is still an unacceptable 1.6.)

Syllable counts represent an attempt to control vocabulary. Good writing depends on far more than the assembling of non-challenging words. (The
ratio for the two preceding sentences is 1.85 . The ratio for the second of those sentences alone - which contains 7 one-syllable words amongst its total of 11 words - is 1.58 . Still not good enough.) Complex matters often require multi-syllabic words, because they often deal with technical matters or sophisticated concepts, which are breeding grounds for multisyllabic words.

With the Connecticut statute in mind, consider for a moment a section of Pennsylvania's Plain English law for consumer contracts. (Pa. Stat. Ann. Tit. 73 § 2201-2211.) Its "Test of Readability" musters the usual list of suspects - short sentences, no passives, and no technical terms. In subsection $2205(\mathrm{~d})(1)(\mathrm{I})$, it requires a contract to have a statement that contains the following:
(i) A general description of the property that may be taken or affected by reason of a security interest or contract if the consumer does not meet the terms of the contract. The statement is not required to list all possible exemptions. As it
may apply, the following statement may be used: "If you do not meet your contract obligations, you may lose your house, the property that you bought with this loan, other household goods and furniture, your motor vehicle, or money in your account with us."

This subsection in Pennsylvania's test of readability repeatedly fails to meet the Connecticut law's precise and objective standards: The sentences average 27.7 words, well above Connecticut's limit of 22; the paragraph contains 83 words, exceeding the required 75 -word maximum average by more than $10 \%$; and the syllables/word average is just a touch high at 1.554, instead of 1.55 . But recall the language of the Connecticut subsection: A consumer contract is to be considered written in plain language only "if it fully meets all of the following tests." Even the minimally excessive syllable-per-word count, all by itself, would have condemned this document.

Notice also the number of passives in this passage from a statute that itself warns against the use of the passive: "may be taken"; "may be . . . Affected"; "is not required"; and "may be used" - 4 passives in a paragraph that contains only 8 verbs. Here is a statute that insists, "Write as I say, not as I write." (The same is true of almost all books on how to write well. Find the page on which the authors tell you to avoid the passive. Turn that page and start counting the passives they themselves have used. You will most probably find a great many. In the chapter in which the famous Elements of Style warns against the use of the passive, the passive is used an average of once every ten lines.)

Connecticut - and every State whose Plain English laws are more specific than New York's - singles out the passive for disapproval. So do almost all English teachers and editors. This is perhaps the single greatest mistake we make in teaching and analyzing our language. The passive -by itself - should neither be considered an error nor a burden for readers; it is simply a linguistic and rhetorical tool. I can state with complete
confidence that the passive is not only as good as the active, but that it is better than the active in all situations in which the passive does a better job than the active. It remains only for us to identify those situations, some of which will become apparent below, in the discussion of Reader Expectations. Here, I offer a single, simple example:
a) Smith assaulted Jones.
b) Jones was assaulted by Smith.

Most English teachers will insist that sentence (a) is a better sentence than
(b). Their reasons: Version (a) is shorter and has an active verb; version
(b) is longer and has a passive verb. They are wrong. You cannot tell which is the better sentence until you consider it in a context.

Whose story is being told in sentence (a)? Most people will say it is Smith's. Whose story is being told in (b)? Most people will say it is Jones's. If your present need is to tell Jones's story, you will do better by
using (b). Imagine the following dialogue:

> Reporter: "Tell me all about Jones."
> Lawyer: "OK. Smith assaulted . . ."
> Reporter: "No, I want you to tell me about Jones."
> Lawyer: "Well I will, just be patient. Smith assaulted . ."
> Reporter:"No! I want to know about Jones!"
> Lawyer: "All right. Jones was assaulted by Smith."
> Reporter:"Thank You."

Whose story is an English sentence? (Here is the first example of a
Reader Expectation.) A sentence tends to be read as the story of whoever or whatever shows up early on as the sentence's grammatical subject. If the only way to move Jones into the "whose story" position in the sentence is by using the passive, then thank goodness for the passive. Moreover, Jones's story ought to be told in the passive because Jones was the passive victim of the aggressor Smith. The concept of passivity is thus
an important part of the nature of this interaction - at least as seen from the perspective of Jones; and the passive does a far better job than the active when the writer wishes to convey passivity.

It is impossible to create sophisticated, elegant, communicative prose without a firm control of the use of the passive. If you explore any Plain English statute that decries the passive (which almost all of them do, just like the textbooks referenced above), I predict you again will find multiple uses of the passive even on the same page on which we are urged to abandon it. The truth is, we cannot do without the passive. It is a tool with which we can alter the structural location of information in a sentence. Structural location turns out to be the cornerstone of reader expectations.

Where prose is concerned, drawing any statistical line in the sand is likely, sooner or later, to create havoc. It is not so much that Connecticut has chosen the wrong numbers; it is rather that no set of numbers could
possibly be the correct one.

Plain English statutes make the same kind of mistake when they allow such great emphasis on the number of words a sentence contains. Wellwritten sentences longer than 22 words - all the way up to 200 words can ring clear as a bell. A badly constructed 10-word sentence can cause major confusion. Sentences with a single clause tend not to exceed an average of 12-15 words. Sentences with two clauses usually extend the word count to at least the mid-20s. Lawyers often have the need to write two-clause sentences: Perhaps they are trying to compare two concepts or two facts or two legal requirements by juxtaposing them; or perhaps they are presenting two distinct chronological narrative units which need to be considered as one continuous action; or perhaps they are constructing a part 1 and a part 2 of a thought, both of which must be present in the same syntactic unit to convey to the reader the unity of that two-part thought.

If we examine the sentence that precedes this one, we find some notable statistics. It is 81 words long. It has four sub-parts, the last of which by itself is 36 words. Its syllable per word ratio is 1.57. Did you have significant difficulty in making your way through it the first time? The 81 words are supportable because of the sentence's structure: I gave you, by my use of punctuation, four different places to come to a complete halt: I warned you in the first unit (with a colon) that other complete units would be coming along shortly; I gave you signs that the sub-units would all be parallel to each other, each (before the last one) ending in a semi-colon; and I put the right kind of information in the right places. If a writer knows how to care for readers, by understanding well enough the nature of the reading experience, the number of words matters little, if at all. And if a writer fails to understand what readers need and where certain information should appear to send most successfully the right interpretive signals, even a 10-word sentence can breed a dozen or more different interpretations in a dozen readers.

Connecticut was trying hard; but the mere hope that Connecticut's standards will produce prose that should be better than the despised Legalese is insufficient justification. Nor does it suffice that this statute might work well in many cases, because it will fail in the hard cases. There are better ways to accomplish its goals.
3. Florida: Florida Stats. Ann. § 627.4145

Far more problematic than Connecticut's law is Florida's Plain English law for insurance policies. In addition to the familiar calls to avoid complexity and length and passives, it requires the following show-stopper:

The text [must] achieve a minimum score of 45 on the Flesch reading ease test as computed in subsection (5) or an equivalent score on any other test comparable in result and approved by the department.

Rudolph Flesch (1911-1986) was another laborer in the Plain English fields who fought the good fight nobly, producing a great deal of spirited writing in favor of clear and energetic prose. But he left us with the Flesch-Kinkead Reading Ease Test. That test, so precise in appearance, with its impressive, scientific sounding calculations to the third decimal place, might possibly be functional as an axe; but it should never be used as a scalpel. Here are the calculations it requires us to make:

1. Count the number of words in the document.
2. Count the number of sentences.
3. Divide the latter into the former to get a words-persentence ratio.
4. Multiply that ratio by 1.015 to produce product "X."
5. Count the syllables in the document.
6. Divide the number of words into the number of syllables to get a syllables-per-word ratio.
7. Multiply the syllables-per-word ratio by 84.6 to produce
product "Y."
8. Add products X (step 4 above) and Y (step 7 above) together, and subtract their sum from 206.835. The final result is your Flesch Score.
9. If your Flesch score is below 45, your document fails the Florida test.

The idea that " 45 " has some magic qualities to it should have been laughed off the stage decades ago. (And where did all those decimal places disappear to in the final Flesch score?) But Florida uses this test, as does Minnesota, and Alabama, and 34 of the 37 States that have such laws. It is such a shame - such well- meaning legislation based on such inadequate linguistic theory and practice.

Here is one striking instance of its failure as a scalpel. Federal law requires a company to inform thousands of its employees, of varying educational backgrounds and abilities, if their retirement benefits
will be calculated by a new accounting system. Those communicative documents, known as $204(\mathrm{~h})$ notices, are required by federal law to be written "in Plain English." In a major class action suit (to be discussed at length later), I subjected three such documents to the Flesch test. They failed, scoring about 42 - well below the 45 barrier of respectability. But I noted that the company's name included six syllables. No employee of that company ever has a six-syllable reading experience when confronted with the Company's name. Its familiarity allows all those readers to see the whole six syllables at a glance, requiring no more effort than is needed to read a one-syllable word: To them, it simply reads "Boss." In the three documents, the company's name appeared 14 times. When I counted that name as one syllable instead of six throughout, the Flesch test result zoomed to over 48, a happily passing grade. The scalpel failed.

The Flesch test is much affected by how many syllables the reader encounters. The word-per-sentence ratio is to be multiplied by 1.015 -- just a smidgeon more than 1.0; but the syllables-per-word ratio is to be multiplied by a whopping 84.6 - a number that, when compared to 1.105 , always strikes me as Gargantuan.

Here is a complete list from one of the 204(h) notices (called a BeneFlash) of every word that comprised more than two syllables. Most of these were used several times, causing the syllable-to-words ratio to skyrocket.

3 -syllable words:
according; addition; benefit; bonuses; company; credited; determined; directors; employees; employer; employment; established; exciting; financial; guaranteed; incentive; interest; introduce; investment; minimum; mystery; overtime; production; retirement; salary; terminate; together; upcoming

4-syllable words:
accumulate; annuity; available; BeneFlashes; comfortable; compensation; contributions; eligible; information; participate; periodic; traditional

5 -syllable words:
complementary; compensatory
6 -syllable word: eligibility

All of these words - with the possible exception of the necessarily technical term "annuity" - are eminently readable by the "company" "employees" who desire to know how much of their "salary" will "accumulate" to become a "benefit" for them when they reach "eligibility" at their "upcoming" "retirement." This last sentence contains 46 words. It has a 1.87 syllables/word ratio and a 46 words/sentence ratio. Its Flesch test score is a miserable 1.097 nowhere near the Florida requirement of 45 . But did you have any
difficulty reading it? No employee interested in his or her retirement benefits is likely to find it unreadable.

Perhaps it should also be noted that the sentence in the Florida law that attempts to make the exceptions to the Flesch rule "clear" - § 627.4145 (2) - is itself 71 words long. It receives a Flesch score of 7. Complex material must be allowed to be represented by complex prose. Prose that is complex can still, if well written, be clear - or "plain."

To deal with complicated matters like retirement benefits, a document must be replete with multi-syllabic words that are not only familiar to its intended readers but without which the document would be hard-pressed to make good sense. The Flesch test, and all the others like it, ${ }^{3}$ may be of some help to textbook publishers who

[^2]wonder what grade level their texts would best serve; but some better way must be found to judge the readability of legal documents that deal with complex ideas and relationships.

An opportunity to use REA to define Plain English arose when I was asked to serve as an expert witness for a huge company that was being sued in a class action for not having written its 204(h) notices in Plain English. It was after reading my 120-page analysis of the readability of the documents, my 86-page response to their expert's 26-page report, and my responding to 8.5 hours of a deposition that the plaintiff's lawyers withdrew their claim, telling the judge, "We can't beat his argument." That allows me to make the claim that, when we need to judge readability, REA is that "better way" to get the job done.

Before we look at the specifics of that case, and of another parallel
class action suit brought by the same law firm against a similar defendant, we need to explore how REA works.

## B. The Reader Expectation Approach

## REA ${ }^{4}$ has been developed primarily as a teaching device to help

lawyers, scientists, and others who write as part of their profession, to gain as much control as possible over their reader's interpretive processes; but, as these major class action suits demonstrated so dramatically, it also can work well as a method to judge the readability of a text.

[^3]Writing has always been taught from the perspective of polite society, its needs, and its rules. It concentrates on the writer - what the writer should or shouldn't, must or mustn't, can or cannot do. School-based writing pedagogy can afford to function like this, because in school all the attention is focused on the writer. There is no real reader - only an evaluator, the teacher. In the world of the professions, the writer strives to communicate to readers information and ideas that those readers might not yet know; but in the school world, students write not to communicate, but only to demonstrate. They have nothing new to tell teacher; they need only to demonstrate that they have generated a sufficient amount of work to have completed the assignment successfully and be appropriately rewarded. If they fill the appropriate number of pages, on the right topic, with energy, they cannot fail. If they happen to improve since last time, their grade will accordingly improve. This is not the case in the world of the law. No judge ever tells an attorney,"This brief of yours is poorly written, inadequately researched, and badly
argued; but it is so much better than your last effort, you win the case."

The standard American approach to teaching writing has varied remarkably little since it was first formulated in $18^{\text {th }}$ century Scotland by Hugh Blair's influential Lectures on Rhetoric and Belles Lettres.

That book focused primarily on propriety and elegance. It abhorred barbarisms and solecisms, making the concept of error avoidance a primary pedagogical goal. To this day, error is considered the single most prominent indication of bad writing for the public at large. To that concern our schools have added certain ubiquitously accepted "rules," which we have seen echoed in almost all the Plain English statutes in the country:
-- Avoid the passive.
-- To make it better, make it shorter.
-- Write the way you speak.
-- Avoid jargon.
-- Never split an infinitive.
-- Never end a sentence with a preposition.
-- Every paragraph must begin with a "topic sentence," which states the issue and the point of the paragraph.

All of these are problematic. Many of them are just wrong.

The Reader Expectation Approach eschews rules and looks instead at readers' interpretive habits. I can summarize its primary concept in a single sentence: Today's readers of English take the great majority of their clues for interpretation not from word choice nor word meaning but from structural location. More simply, where a word appears in a sentence will control most of the functions to which it will be put. Stated even more simply, a reader of English knows where to look for what. For rhetoric, just as for real estate, the three most important concerns are location, location, and location.

As readers, we develop these expectations intuitively. "All" we need to do as writers is to become consciously aware of them so we can put them to use.

As a reader, in order to perceive from a given sentence what the writer intended you to perceive, you must be able to answer the following four questions accurately:

1. Whose story is this? (From what or whose perspective are you to understand this information?)
2. What is going on here? (Which words convey to you the actions taking place?)
3. How does this sentence link backward and forward to its neighbors? (What are the informational and logical connections between them?)
4. What are the words in this sentence that are so critically important that you should have read them with special emphasis? (Which words should be considered the stars of the show?

If, as a reader, you have come away from a sentence with the wrong answer to any one of these four questions, you will not have perceived what the writer was trying to convey. In that case, the fault is not yours; it is the writer's. If you come away with several wrong answers within a paragraph, you become seriously confused, whether you know it or not.

REA claims that readers know where in the sentence to look for the answers to all four of these questions. If as a writer you know where these locations are, you can gain far greater control of your readers' interpretive processes. These expectational principals can be used, in turn, to
estimate whether prose should be considered Plain English or not. The application of these REA principles to these large class action suits produced arguments that convinced even the plaintiffs that the texts in question were indeed plainly written.

Here are the expected answers to these four locational questions. Once they are understood, we can explore any contested document to determine how it fares in terms of readability.

1. Whose story is this sentence? (From what or whose perspective are you to understand this information?

In English, we expect a one-clause sentence to be the story of whoever or whatever shows up early on as the grammatical subject of the sentence. Recall the example above with the bellicose Smith and the battered Jones [page 20].

If a sentence contains more than one clause, readers tend to believe that (1) each clause is the story of its grammatical subject, and (2) the sentence as a whole is the story of the grammatical subject of the main clause. (A main clause is a group of words, containing a subject and a verb, that can stand by itself as a sentence.)
-- Although Jones wished to avoid all possibility of conflict, Smith insisted on expressing himself with his fists.
-- Smith insisted on expressing himself with his fists, although Jones wished to avoid all possibility of conflict.

Both of these sentences will be read by most people as the story of Smith, because in both versions Smith is the grammatical subject of the main clause. Jones is the subject of a qualifying clause (my term) - a group of words containing a subject and a verb that cannot stand by itself as a sentence.

To make Jones's story the main story, alter the structure to make Jones's clause the main clause:
-- Even though Smith insisted on expressing himself with his fists, Jones still wished to avoid all possibility of conflict.

We can now see one reason why the passive is such a necessary tool for the writer: It helps us move the furniture around. If the passive is the only way we can get the right "whose story" into the position of the grammatical subject, then thank goodness for the passive. If readers are to understand what you mean getting that information properly located is crucial,.

For a single sentence like "Smith assaulted Jones," this might not seem such an important matter. But when you construct a sentence of 30 or 45 or 60 words, your reader will be lost if the wrong person's (or thing's or idea's) story controls the reader's perspective. When this problem appears sentence after sentence after sentence, chaos is likely to result.

The writer's intentions become hopelessly camouflaged - whether the reader is consciously aware of that or not. The constant appearance of the correct "whose story" (whether person, thing, or idea) as the grammatical subject of the main clause is a distinct indication of readability.
2. What is going on here? (Which words convey the actions taking place in this sentence?)

Here are two sentences I have presented to hundreds of groups of students and clients. I ask them to underline the word or words in each that name the actions taking place in that sentence. (Please try this yourself.)
a. What would be the employee reception accorded the introduction of such a proposal?
b. How would the employees receive such a proposal?

For sentence (a), in a participant group of 20 some people will have underlined zero words, some one word, some two, some three, some four, and some five. That is six different numbers; but there are far more than 6 choices generated by these 20 people. Those who underlined two words usually have chosen a number of different pairs; and those who underlined three will have assembled a number of different sets; and so forth. In my long experience with this sample sentence, a group of 20 people will have underlined from 15 to 18 different combinations of words - and this from a sentence that contains only 13 words.

For any individual in this group of 20, the odds for his or her choice proving unique are much higher than the odds that at least two other people having made the same choice. This is a phenomenon. No one in the room, I am sure, felt that the (a) sentence was beyond his or her intellectual ken; and yet as a reading community, there is no consensus
whatever as to what is going on in this sentence. In hundreds of experiences using this example, this has been the case without exception.

Repeating this underlining of actions, this time for sentence (b), anywhere from 16 to 18 people consistently will have underlined one and only one word - "receive." Most of the others will have underlined "receive" and an additional word. Why is there such solid agreement among readers for the second sentence, when there was none at all for the first?

The answer lies in the next of the Reader Expectations: Readers of English expect that the action of a sentence will be articulated by its verb. We lean forward to the verb to discover what is going on. If it seems to tell us that, we tend to accept it as the answer to this question and move on to other (and more important) interpretive questions. If it does not, we have to use some of our remaining "reader energy" to continue to seek for the action, while we should have be using that energy for other even more important matters.

Only one person knows for sure what this writer had intended to say when she wrote the (a) version - and that is the writer. Fortunately, I had a long conversation with her about those intentions. She informed me that my rewrite (the (b) version), sleek and direct though it might be, was a totally inadequate expression of what she had intended to say. To make it sleeker, I had omitted the concept of "introduction," feeling sure that it was merely excess baggage: How, I reasoned, could the employees receive a proposal that had not yet been introduced? To make the sentence better, I omitted the concept of "introduction," thus making it shorter.

In doing so, I demonstrated that I had missed her meaning altogether.

She informed me that her two actions had been "reception" and "introduction." In a group of 20, usually zero or one will have identified those two words and only those words. Having been told what her intended actions were, I then understood that I did not know what she
meant by her sentence. However, I could still help her express her meaning more clearly: If "reception" and "introduction" were her intended actions, she should make them verbs. In summoning the agents of those actions to be the subjects of those verbs - there is no way of getting around that -- her meaning would become clear. In no time, she produced the following:
c. How would the employees receive such a proposal if the executive board introduced it at this time?

With agent/action being proclaimed by the subject/verb, the skeletal structure of her narrative became clear, revealing who did what:
"How...employees receive..., if... executive board introduced"

And the "at this time," prominently displayed in the Stress position (see
\#4 below for a discussion of the Stress position), tells us that the importance of the "introduction" was not that it happened but rather when it happened.

If we return to her original sentence, we can see that it is capable of being interpreted that way. Capable, yes; likely, no. If she had spoken her original sentence to us, she would have cleared up much of the problem by using her voice to indicate the importance of "introduction":

> What would be the employee reception accorded the introduction of such a proposal?

But most readers will tend to be so glad to greet the arrival of "accorded" - which finishes off the verb "would be accorded" - that "introduction" would have slipped by almost unnoticed.

It is insufficient to construct a sentence that is merely capable of being
interpreted as the writer intended: It is sufficient only when that sentence will lead well more than 90 percent of its readers to agree on a single interpretation - the one the writer intended.

If many verbs in a document fail to articulate what the writer intended to convey as actions, the readability of the document suffers. Verb = Action, on a constant basis, is one of the signs of eminent readability.
3. How does this sentence link backward to the sentence you have just finished reading? (What is the informational and logical connection between those two sentences?)

When a reader begins a new sentence, one of the most pressing concerns will be this question of backward connection. We do not read a sentence in isolation from the rest of the text, returning only at the end of the paragraph to find out how the sentence was intended to connect to its predecessor. We need to read and understand a text continuously, from
left to right and through time - not only from the capital letter at the beginning of a sentence to its period, but also from sentence to sentence throughout the paragraph. If the writing is well done, nothing will appear that we cannot make some use of at the moment of its arrival. Everything will conspire and connect to help the reader move forward continuously.

Consider the following generic example. Here is a sentence you have just finished reading:

$$
\mathrm{A} \quad \mathrm{~B} \quad \mathrm{C} \quad \mathrm{D} \quad \mathrm{E} \quad \mathrm{~F} \quad \mathrm{G} .
$$

As you begin the next sentence, you will want to know which of these items - or which combination of them - stretches into this new sentence to form the logical connection between the two.

Let us say the next sentence begins with "Q." How does $Q$ connect backward? We cannot yet tell: Nothing in the A to G sentence is "Q-
connectable". We continue reading. The next thing we encounter is "R." Huh? And then we find "S." What? At this point, we have so much on our plate in trying to make sense of this new sentence as a unit of discourse by itself that we have to abandon the search for how it connects backward to the previous sentence. Our train of thought has been derailed. Our forward motion has been impeded. Even if somewhat later in the sentence we encounter "D," it may by then be too late to revive our sense of logical connection. Should this happen on a regular basis, we will be defeated as readers, whether we are aware of it or not. Many of us blame this conceptual fuzziness on ourselves as readers; instead, we should blame it on the writers.

Something else might happen that has even worse consequences. Here again is the previous sentence:
A B C D E F G.

Let us say the writer intends us to continue the thought process initiated by "G"; but, not knowing about or sensing the necessity for backward links, the writer carelessly begins the new sentence with "B." As readers, we are in real trouble: When we see " $B$," we remember " B " from the last sentence and allow it to form a connective link. Even if "G" were to show up soon thereafter, the damage has already been done: We have made the wrong logical connection. It is yet worse to come away from a sentence erroneously believing we have perceived the right connection than it is to come away confused as to what logical connection might have been intended. Both produce bad prose. Unclear.

There is another, connected, structural concern involved with this question of backward linking: Readers can make that link more surehandedly if the material to which the link refers appears at one of two important moments in the previous sentence - either (1) to the occupant of the "whose story" position (the grammatical subject), or (2) to the final piece of material of the previous sentence.

The clarity of the reference for this backward link is constantly essential if readers are to be able to follow the writer's flow of thought with ease. Here is an example in which the sentence labeled (a) will remain the same as it is connected to a number of different sentences that could conceivably follow it. The variation will highlight the way in which the new second sentence links backward to our unvarying sentence.
a) The standard used to determine liability in the Smithson case must be considered applicable to the issues in the present case against Johnston.

Where might the next sentence lead us? Any number of different places. How soon do we want to know what that new direction will be? Immediately. What are the two easiest linkages for readers to make? Connections to important moments at the beginning or the end of the previous sentence. Here are possibilities that make use of each of those two optimal options, producing an uninterrupted flow of thought.
b) Linkage to the "whose story" occupant at the beginning of the previous sentence:

The standard used to determine liability in the Smithson case must be considered applicable to the issues in the present case against Johnston. That standard has been is use in this State for 47 years and has been confirmed as appropriate by both the State's Supreme Court and the U.S. Circuit Court on four different occasions since 1992.
c) Linkage to the end of a preceding sentence:

The standard used to determine liability in the Smithson case must be considered applicable to the issues in the present case against Johnston. Johnston's actions were undertaken under the exact same conditions and produced the exact same results.

Linkage to pieces of information located elsewhere in the previous sentence are possible; but they will probably make the reader work harder to recognize the connection, impeding the desired ease of the forward flow:
d) The standard used to determine liability in the Smithson case must be considered applicable to the issues in the present case against Johnston. Smithson had informed all parties concerned before signing the new contract, which had been presented to them with great urgency by a third party.
e) The standard used to determine liability in the Smithson case must be considered applicable to the issues in the present case against Johnston. The applicability of those issues must be differentiated from that concerning the issues in Nevada v. MajorCorp, given Nevada's long-standing position on third party interference.

A total lack of linkage up front would be yet far more disturbing to the flow:
f) The standard used to determine liability in the Smithson case must be considered applicable to the issues in the present case against Johnston. Five States, since 1997, have passed legislation concerning contracts that deal with multiple parties and involve more than $\$ 200,000$, requiring also that the original offer be made in writing and be distributed to each of the parties with all necessary disclaimers...
... And sooner or later we have to give up trying to link backward, just to survive the onslaught of the present sentence.

It may seem at first that (b) and (c) above are "fine," that (d) and (e) are
acceptable, and that (f) is "bad writing"; but if the author of the paragraph had been trying continuously in this paragraph to explore and expand upon the story of the "standard," the only successful option here is (b). To keep that story going, the "standard" must continually stay up front, in the "whose story" position, where it also simultaneously and constantly acts as the backward link. All the other options here destroy that particular mode of forward progress, since they all fail to continue the story of the "standard." Some may sound better than others; but they are all equally inferior to the (c) version because they mislead and confuse the reader concerning the writer's intentions.

The worst legal writing is not that which is full of jargon, passives, error, nor lengthy sentences. It is that which seems to be presentable and full of thought but still fails to deliver the desired message to the reader. That failure usually occurs (and constantly reoccurs) when the information readers expect to find in one location is hiding somewhere else in the sentence.

For a sentence to do its job well, it has to have the appropriate backward link - not just any backward link - right up front, connecting as easily as possible to the sentence just concluded. That connection point ideally should either be to the end of the previous sentence or to the "whose story" grammatical subject up front in that sentence. If that happens on a regular basis, it greatly facilitates the continuous flow of thought.

Put these three Reader Expectations together: If a writer constantly begins with the correct backward link, connects it to the properly placed material in the previous sentence, announces accurately whose story this is in the grammatical subject, and indicates what is happening by the choice of verb, the reader is always off to an excellent start - sentence after sentence after sentence. These are three essential elements in writing that cause consistent readability. After such a successful start, the reader needs only to reach an equally excellent conclusion.

Of all the Reader Expectations, the following one, concerning the Stress position, is by far the most important. The constant misplacement of the most stress-worthy information in a sentence is this country's number one writing/reading problem, afflicting well over $90 \%$ of professionals in every field.
4. What are the words in this sentence you should have read with special emphasis? (Which words convey the most important $\underline{\text { material in this sentence? }}$

Wouldn't it be nice if we were allowed to print the most important words in a sentence - the ones which, if we were speaking them, we would emphasize with the dynamics of our voice or by the waving of our hand in red? No one (other than a few color-blind males) would ever mistake our emphatic intentions. As readers, we would see the red words approaching; we would mentally begin a crescendo; and when we reached the red words we would read them with a sense of arrival, with a sense of
climax. We then could decrescendo for the rest of the sentence. We would never mistake what it was the writer intended us to emphasize.

Unfortunately, even in these days of low-cost color printing, we are not allowed to take advantage of such a scheme; but fortunately, we already have something just as good - even though very few people know about it consciously. Here is the fourth crucial Reader Expectation: Readers expect to exert extra emphasis whenever they come to a full halt. I call such a structural location a "Stress position." It is created by any moment of full syntactic closure. In slightly less technical language, it is created whenever the grammatical structure of the sentence comes to a full halt. That happens at any properly used period, colon, or semicolon.

It can never happen at a comma. The comma is the only mark of punctuation in English that does not announce its function at the moment of its arrival. We always know precisely what to do when confronted by a period or a question mark or an exclamation point; but since there are so
many different kinds of things a comma can do for us, we never know which kind of a comma we have encountered until we have read past it. It might signal the beginning of a one-word interruption, like "however"; or it might, in combination with the word "and," signal the beginning of a whole new clause; or it might indicate we have just encountered the first item in a list of three or more. We always have to read past the comma to find out what it was trying to accomplish. Therefore, during the initial reading of a sentence, a comma can never be a moment of full syntactic closure.

Why is the Stress position in English always at the end of a complete unit of discourse ${ }^{5}$

I suggest it is due to our culture's intense interest in the phenomenon of closure. Having worked our way through a long journey, we are delighted and relieved when it is finally over. Having struggled through a large

[^4]project, at its end we like to reward ourselves. Knowing our basketball team will win, being ahead by 19 points with only 11 seconds remaining, most of us remain in our seats until the clock winds down to zero and that cacophonous buzzer announces, "It's over!" Try this experiment: Sing to yourself, "My country, 'tis of thee, sweet land of liberty, of thee I . . . ."

Can you refrain from finishing that last word and note? You are not lacking any "information" you need; you "know" how it ends. But, if you are, like me, addicted to cadential closure in western music, the rest of your day will be unsettled if you do not conclude the phrase by at least humming (silently or audibly) the closing word and note "sing."

This concept of closure applies directly to the act of reading. The two sentences of the following example are badly written. I know this not from their vocabulary (which is constantly accurate and relevant) nor from any grammatical errors (of which there are none), but rather from having explored with their author what he had intended them to convey.

As used in the foundry industry, turn-key means responsibility for the satisfactory performance of a piece of equipment in addition to the design, manufacture, and installation of that equipment. P et al agree that this definition of turn-key is commonly understood in the foundry industry.

If you were an editor, forced to guess at what the author meant to emphasize, and allowed to use red type to indicate stress, which words would you print in red?

From my experience experimenting with this example for three decades, with a group of 20 people, I am relatively unlikely to find more than two who choose the exact same combination of words to print in red. I am highly unlikely to find more than three. It is rare that more than one person selects precisely what the writer had intended us to emphasize; more often, there are none. It would be helpful if you would make your own choice(s) for emphasis in the samples sentences before reading the
next paragraph.

The author tells me the only term in the two sentences he wished us to emphasize was "satisfactory performance." Did you get it right? If you did not - and the odds are you did not - it was not your fault; it was his. He was supposed to signal us which words were the ones we should emphasize.

Am I suggesting that if you combined these two sentences into one even longer sentence, and placed "satisfactory performance" in the Stress position at the end, a large majority of readers would know to emphasize "satisfactory performance"? Yes, indeed. Here is just such a revision:

As P et al agree, the foundry industry uses the term turn-key to signify not only the design, manufacture, and installation of a piece equipment, but also its satisfactory performance.

Such is the power of the Stress position.

Now let us put all four Reader Expectations together: If a writer constantly begins with the correct backward link, connects it to the properly placed material in the previous sentence, announces accurately whose story this is in the grammatical subject, indicates what is happening by the choice of verb, and saves the most crucial pieces of information for moments of full syntactic closure, the writer is likely to convey to far more than $90 \%$ of readers precisely what he or she had intended to say.

My previous sentence is 85 words long - grossly unsatisfactory in the eyes of any Plain English statute that relies on counting words. How could I write such a long sentence and still ( I trust) have it remain clear? It is not simply because you already knew from my preceding paragraph all the information contained in this lengthy sentence-long summary; it is mainly because all the known material acted as a tension-building crescendo of dependent clauses to ignite the sense of achievement and arrival furnished
by the main clause and its fulfilling Stress position.

A sentence is too long not when it contains in excess of a certain number of words; it is too long when it has more viable candidates for the Stress position than it has Stress positions. That is how we - and the Plain English movement - should judge the length of a sentence. If there is a Stress position for everything that the author intended to be stressed, the writing most likely will be clear - will be "Plain." Conversely, a sentence is too short when it contains no viable candidate for a Stress position. Such sentences burden and mislead readers, who want to stress something in every sentence. By definition, if there is nothing worthy of a Stress position in the sentence, then the reader who stresses anything will necessarily be stressing a wrong thing. The whole reliance on counting words (or syllables or clauses) should disappear altogether from the conversation about readability. Numbers do not matter; structure does.

Therefore, a better way to determine readability than counting words or syllables would be to examine the rates at which a given text fulfills reader expectations. I applied this approach as expert witness in the previously mentioned two class action suits. In both cases, the texts in question failed all the standard readability tests; but they scored convincingly well when judged by how often they fulfilled reader expectations. These REA scores succeeded in persuading the plaintiffs to drop their case. Let us turn now to that analysis.

# C. Using Reader Expectations as a Test of Readability in the MajorNational Class Action Suit 

Background: In the 1980s, a great many American corporations switched to the "Cash Balance Plan" for calculating employees' retirement benefits. This made significant differences for tens of thousands of employees. In such a case, a federal law (ERISA)requires corporations to send 204(h) notices to all employees, describing the differences between the old and the new plans. ERISA requires these notices to be written in "Plain English."

In the early 2000's, a law firm sued a number of these large corporations, claiming that their 204(h) notices were not written in English plain enough to explain clearly to the employees what was happening to their retirement benefits. If that proved true, the corporations would be considered not to have informed their employees as required by law. As a result, several years of retirement benefits, involving untold millions of dollars, would
then have to be recalculated under the old benefits system and paid retroactively.

Hired by two of these companies to testify as an expert witness whether their notices were written in plain enough English, I was surprised to find the notices, despite the technical and detailed nature of their contents, to be written with great clarity. Despite that clarity, had the notices been subjected to the various readability formulae currently in use by Plain English statutes, they would have failed each test; but when examined on the basis of the REA's predictions of readability, they fared remarkably well.

One of those cases was never adjudicated, due to the Company's declaring bankruptcy shortly before the trial was to take place. The other concerned a prominent company not to be named here.

I will explore one 4-page document from the suit against MajorNational

Corporation in some statistical detail and then analyze the text of just one of its paragraphs. The style of that paragraph fairly represents the level of craftsmanship for all the litigated documents in both cases.

How would this document have fared had it been judged under the New York statute, which requires only that it be "written in a clear and coherent manner using words with common and everyday meanings"? I would argue that it accords with this standard admirably; but someone else (and there are many such people) who cannot abide the passive voice at any time (though they do not know why), or who insists that multi-syllabic words be kept to an absolute minimum, might have a problem with it.

For such people, if the text sounds "legal," it is, by their definition, unacceptable. This document sounded "legal" because it is a communication legally required by federal law and must, of force, deal with sobering material and burdensome technical details. New York's Potteresque statute - "I know it when I see it" - depends far too much on who the "I" happens to be.

In contrast, under the Connecticut statute, there is no question about the outcome of the case: The document would have been pronounced unreadable on several counts. Here are the relevant statistics:

$$
14 \text { paragraphs }
$$

40 sentences
917 words

1,780 syllables
22.925 words per sentence average
1.94 syllables per word average
65.5 words per paragraph average
longest sentence $=62$ words
longest paragraph $=163$ words

You will recall that any single statistical transgression under the
Connecticut law results in condemnation of the document as failing to be Plain English. Here are its failures:

* The 22.95 words per sentence average exceeds the limit of 22;
* The 1.94 syllables per word average far exceeds the limit of 1.55;
* The 62 -word sentence exceeds the limit of 50 words;
* The 163 -word paragraph exceeds the limit of 150 words.

The only acceptable figure is the 65.5 word average for paragraphs, which is well under Connecticut's limit of 75 words.

When we turn to Florida - and the other 33 States that make use of the Flesch-Kincaid Readability Formula - the results get even worse. The document has a Flesch score of 19.442 - nowhere near Florida's acceptable lower limit of 45 .

If we subject the document to four other leading readability formulae, the results are not only negative but also disturbingly erratic. The ColemanLiau, ARI, FOG, and SMOG tests all attempt to reveal the grade level of
prose - that is, the grade in school one has to have completed to be able to comprehend the text. The results:

Coleman-Liau: 10.65
ARI: $\quad 18.22$
FOG: $\quad 16.8$

SMOG: 13.2

These disagree so widely - everything from Sophomore year in high school to the third year of graduate school - because, I would argue, they are measuring textual statistics that are chiefly characteristic of the kind of history, literature, and other texts likely to be encountered in a schooling situation. Those texts differ markedly from 204(h) notices. To test this, I selected two passages, completely at random, from J.K. Rowling's hyperpopular book, "Harry Potter and the Prisoner of Azkaban." ${ }^{6}$ Here are the grade level results for those passages generated by the same four tests:

[^5]Coleman-Liau: 11.5
ARI: $\quad 12.53$
FOG: 12.58
SMOG: 10.93

These four scores are all within 0.63 of each other - as opposed to a range of 7.57 for our legal document. For Harry Potter, the four scores average 11.85 . The tests tend to agree with each other in assessing Rowland's captivating writing; but apparently one should not be reading Harry Potter books until just before the junior prom. Fifth-graders love Harry Potter. These tests must be revisited.

Harry's Flesch test number was 55 - suggesting he is eminently readable in Florida by just about anyone. But legal texts - even those intended to be read by 75,000 employees, of widely varying educational backgrounds - must deal with linguistic and rhetorical realities that differ starkly from the needs and situated tasks of high school texts. Harry Potter and 204(h)
notices should not be judged by the same measurement systems.

Let us look at a single paragraph from our document, applying REA principles to determine its readability. I have intentionally chosen what might be considered the dullest and most legally bound paragraph in the text. There is nothing Harry Potter about it. The 204(h) notice from which it was taken was sent to the employees of SmallerCorp, whose company had just been purchased by MajorNational. The Retirement Plan of the former was being superceded by MajorNational's new Cash Balance Plan.

This paragraph was printed in italics and inserted in a box. Both of these forms of artificial emphasis signal readers that the information is on the one hand important, but on the other hand out of the main flow of the rest of the document. Not being dependant on either of the paragraphs that surround it, this 4-sentence paragraph can be read for comprehension in isolation.

This notice is being provided in accordance with Section 204(h) of the Employee Retirement Income Service Act (ERISA) of 1974, as amended. This notice is required by the federal government to provide information that helps employees understand the effects of a reduction in future retirement plan benefits. MajorNational has prepared this notice for you and other employees whose future benefits will be reduced under the new Retirement Plan. Please read the information carefully for a general description of how your Retirement Plan benefits will grow under the new MajorNational Retirement Plan compared with your SmallerCorp Retirement Plan.

By the Plain English statutes, this paragraph fails to qualify as readable. Here are its statistics:

4 sentences

97 words

189 syllables
24.25 words per sentence
1.95 syllables per word

The 97 words of this paragraph are well above Connecticut's average limit of 75 (even if still below its individual paragraph limit of 150 ). The 24.5 words per sentence exceeds Connecticut's limit of 22 . The 1.95 syllables per word greatly exceeds its limit of 1.55.

The paragraph's Flesch test score is a meager 17.25 - nowhere close to Florida's minimum requirement of 45 .

If instead we investigate the text here by REA principles, we can determine far more accurately whether the important (though not uplifting) content has been communicated. I remind you of REA's four crucial questions and their structural answers:

1. Whose story? Look to the grammatical subject.
2. What is going on? Look to the verb.
3. What is the backward link? Look to the first piece of information in the new sentence that can be connected to the previous sentence.
4. What information is most stress-worthy? Look at any information in a Stress position - i.e., immediately preceding a period, colon, or semi-colon.

Here again is the first of the paragraph's four sentences:

This notice is being provided in accordance with Section 204(h) of the Employee Retirement Income Service Act (ERISA) of 1974, as amended.

1. Whose story? This sentence is the story of "this notice."
2. What action? The notice "is being provided."
3. Backward link? There is no backward link concern because this is the first sentence of an isolated paragraph.
4. Stress-worthy information? This is happening because it is required by a specific law, which goes by the name of ERISA, as amended.

Concerning Expectation \#4, one might complain that the naming of the law is tedious and difficult to muddle through. But what would be a better alternative? MajorNational has to mention "204(h)" so that it would be clear that the notice, specifically and explicitly, complies with the requirement that a 204(h) notice must be sent. The reader may not enjoy this particular journey; but MajorNational must be careful to signal it is complying with the law.

The verb here is in the passive mode. It needs to be in the passive mode. This is the story of "the notice"; and this notice's story is a passive one. To avoid the passive, the author would be compelled to make the sentence
someone else's story:

We are providing this notice in accordance . . .

That would be worse. This is not "our" story. It is the story of "the notice."

Here is the paragraph's second sentence:

This notice is required by the federal government to provide information that helps employees understand the effects of a reduction in future retirement plan benefits.

1. Whose story? This is a continuation of the story of the notice.
2. What action? The verb tells us it "is required" - by the federal government that created ERISA. Once again the passive lets us
know that something is happening to the notice. To get rid of the passive, once again the author would have to change whose story the sentence would be:

The federal government requires us ...

If you put these two inferior, anti-passive revisions together, the communication of this paragraph becomes seriously obscured:

We are providing this notice in accordance with ERISA.
The federal government requires us to do it . . . .

The story of the notice has disappeared. In its place, "we" are whining about what "the federal government" is making us do. "You" have thus been forgotten. This paragraph should be about your notice - not about our legal encumbrances.

The action extends because the verb construct is extended: The
notice "is required . . . to provide information." That information in turn "helps employees understand." In this latter clause, it is the story of the employees, who are doing the act of understanding.
3. Backward link? In this case, the backward link, "the notice" is the same as the "whose story" subject - an easy connection for the reader to make.
4. Stress-worthy information? The Stress position is reserved for the most important and the most distressing of information - "the effects of a reduction in future retirement plan benefits." If you are receiving this notice, your future benefits will be reduced. This bad news is not hidden but rather is highlighted - by its appearing in the Stress position.

The third sentence:

MajorNational has prepared this notice for you and other employees whose future benefits will be reduced under the new Retirement Plan.

1. Whose story? The story has shifted from that of the notice to that of MajorNational, in the main clause, and then to our "future benefits," in the qualifying clause.
2. What action? MajorNational is doing the action of preparing the notice for us; and we are then the people whose future benefits will do the action of growing smaller. The verbs make these actions clear.
3. Backward link? The earliest information we have previously encountered - in the fourth and fifth words - is "this notice." It is easy for a reader to make that connection, since both of the previous sentences featured the story of that notice.
4. Stress-worthy information? Most of the information in this sentence is familiar to us from the earlier two sentences. The only new news here is that the reductions we might experience have something to do with this new Retirement Plan. That is made clear by that Plan being highlighted by its appearing in the Stress position. The repetition of a reference to benefits being reduced reaffirms that this document is not hiding that bad news. MajorNational is complying not only with the letter of the ERISA requirement but also with its spirit.

The fourth sentence:

> Please read the information carefully for a general description of how your Retirement Plan benefits will grow under the new MajorNational Retirement Plan compared with your SmallerCorp Retirement Plan.

1. Whose story? Again there are multiple clauses. The first is the story
of the un-named "you," which is supplied by readers of English when confronted with what linguists call a hortatory construction. "Please read" is short for "Will you please read" or "You should please read." The first clause is therefore the story of "you," the recipient of the notice.
2. What action? In the first clause, the story of "you," the action is easily found in the verb "read." In the second clause, which is the story of "your Retirement Plan," the action is equally plain in its verb, "will grow."
3. Backward link? The backward link is signaled by the phrase "this information." It arrives as the third and fourth words of the sentence, well early enough to make the backward link to what was previously referred to as "this notice."
4. Stress-worthy information? Is the "SmallerCorp Retirement plan" the right choice for the Stress position? The sentence might sound
better if it resolved on the newer Plan:

> Please read the information carefully for a general description of how, compared with your previous SmallerCorp Plan, your Retirement Plan benefits will grow under the new MajorNational Retirement Plan.

We must learn to value prose less for how it sounds and more for the ways it which it means. This revision would be, I argue, far inferior. It transforms the descriptive word "grow" into a glowing positive concept, combined as it is with the shining and powerfully located word "new." In actuality, this change in benefits is nothing to look forward to; and the prose which presents it therefore should not make it sound that way. Benefits will indeed increase (or "grow") under the new plan; but this notice is here to show you how that will differ, negatively, from the more profitable, older Plan. Once again, MajorNational is complying with the ERISA requirement in both letter and spirit.

The skeletal structure of the paragraph is thus made as apparent as
possible by the location of the crucial pieces of information in exactly the locations in which a reader would expect to find them:

The notice is required to provide (information for employees)
to help them understand reductions in benefits.

MajorNational has prepared the notice

> (for you because)
your benefits will be reduced under the new Plan.
(You) please read
(this information re: how)
your benefits will grow
(under the new Plan)
compared to the old Plan.

If you read these columns vertically, you can see the flow of the thought emerging from those fragments alone. Whose story is it? It begins by being the story of the notice: (a) under what law, and (b) for what purposes it is required. Then the Company steps in for a moment to make a bridge from "the notice" to "you" and "your benefits. That is a logical and easily perceivable progression.

What actions are taking place? Again reading vertically, this notice is and must be "provided" in order "to help" employees. (That is a general requirement.) The Company is "preparing" the notice for you because your benefits "will be reduced." (That is the specific within the general.) You should please "read" the notice to learn how your benefits (which, you recall, will be reduced) will "grow" under the new plan compared to the old. One might argue about the choice of the word "grow": It sounds so positive. But it is true that under either plan, benefits will grow. And perhaps it is reasonable to assure the employees that their benefits will never decrease in quantity from what they have already grown to be.

And the most important material? We can almost read vertically as a single, all-encompassing statement concerning the purpose of this notice:
"In accordance with ERISA," we write to help you understand "the reduction in your benefits" "under the new Plan" "compared to the old Plan."

When the right kind of information is in the appropriate structural locations to satisfy the expectations of readers, the intended message surfaces with comparative ease.

If I were to rewrite every sentence, keeping all the information intact, but depositing it in places other than those in which readers expect to find it, the readability of the paragraph would suffer greatly. In doing so, I could obliterate the passive voice, for those who are offended by the passive voice - again obscuring the ideas. Here is that unhelpful revision:

In accordance with Section 204(h) of the Employee Retirement Income Service Act (ERISA) of 1974, as amended, we are sending you this notice. The federal government requires us, when there is to be a reduction in future retirement plan benefits, to provide information that explains its effects to employees. You, and other employees whose future benefits will be reduced under the new Retirement Plan, are therefore receiving this notice from MajorNational. Please read the information carefully for a general description of how, compared with your previous SmallerCorp Plan, your Retirement Plan benefits will grow under the new MajorNational Retirement Plan.

This all sounds solemn enough, familiar enough, and legally responsible enough. But look at how well the important material is camouflaged. What do the Stress positions tell us to emphasize?
-- "... we are sending you a notice..
-- "... information explains its effects to employees."
-- "... you are receiving this notice from MajorNational."
-- "... benefits will grow under the new MajorNational Plan.

Nothing in these Stress positions warns the reader that bad things are about to happen to them. The stressed material is either neutral or vaguely positive-sounding.

And where is the bad news hidden? The "reduction" of benefits is changed from a verb of action ("reduced") to a fuzzy nominalization; and then it is hidden from view in three different ways:
-- It is deposited in the middle of a sentence;
-- It is deposited in a "when" clause, not in the main clause; and
-- That whole "when" clause is deposited in between two halves of a phrase that longs to live together - "requires us . . . to provide."

There is no spotlight whatever shining on the fact that benefits will be reduced.

The last sentence buries the fact that your previous benefits under the SmallerCorp Plan will decline. Like the "reduction" in benefits above, "compared with your previous plan" is deposited between two words that need so much to be together that anything that intervenes between them is likely to be read as interruptive and therefore of far lesser importance.
... For a general description of how, compared with your previous SmallerCorp Plan, your Retirement Plan benefits will grow . . .

All the identical information is in both the original and the mal-revised
versions; but the helpful instruction manual - supplied by the right pieces of information appearing in the right structural locations - does not exist in the revision.

In a 60-page section of my expert witness report for the other class action suit, I visited every one of the 129 sentences in the ten pages of their three documents, asking the four Reader Expectation questions we have looked at here. For the whose story, what action, and backward link concerns, the correct information appeared in the properly expected places between $93 \%$ and $100 \%$ of the time. The stress-worthy material appeared in Stress positions about $58 \%$ of the time and appeared in the moment just before the Stress position about another $30 \%$ of the time. Lower though those Stress position numbers might be, they are much higher than those usually encountered in most legal and scientific writing. The single most prevalent problem in professional writing is constantly locating the material most to be emphasized somewhere other than the Stress position. Remarkably, most professionals suffer from this writing disability: In the past 15 years, I
have encountered only 2 professionals who have, by sheer intuition, developed the habit of delaying the arrival of the Stress-worthy material until the Stress position. So, 58\% "excellent" Stress positions, plus 30\% "pretty good" ones, indicates relatively strong and clear writing. Most lawyers, in my long experience, never get above $20 \%$.

Once one comprehends this new structural approach to evaluating writing, all the readability formulae appear hopelessly inadequate. To be sure, there has been a great deal of good work done in the field of Plain English, spurring improvements in many areas. If you want to look at some of the best of this, read Joseph Kimble or Veda Charrow or David Mellinkoff or Robert Benson, the people I recommended to you at the beginning of this essay. ${ }^{7}$ Most of what they say makes eminent sense and has had a substantial effect on legal documents written for the use of a non-lawyer audience. They have helped produce the forward-moving legislation; but the legislators have been at a loss for an adequate way to define readability.

[^6]The 2010 federal statute defined "plain writing" as "writing that is clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience." We have to adjust and reform what those "best practices" are. REA makes far more sense than counting things - sentences, words, syllables, clauses, and multi-syllabic words - and then drawing lines in the sand - no, in concrete - past which writers must not venture. REA should become one of the statute's "best practices." The proper use of structure sends to readers the proper instructions concerning the interpretive process; it recognizes and services readers' expectations. Prose that consistently sends the correct structural instructions should be considered by the Law as "readable," as having been written in "Plain English." ${ }^{8}$

[^7]
## For Further Reading

For those who would like to understand REA better, go to the Publications section of my website - www.GeorgeGopen.com - and scroll down to "That Litigation Articles." This collection comprises more than twenty 1,500-word articles I have written quarterly for several years for the ABA journal Litigation. They are the quickest and easiest way into REA.

For a more in depth single essay, see my article (with Judith Swan), "The Science of Scientific Writing," which has been recognized by its publisher, American Scientist, as one of the 36 "Classic Articles" in its 100-year history of publication. It currently leads that Journal's citation index. (American Scientist 78 (1990), 550-8.)

For those who wish to know yet more, please see my book, Expectations: Teaching Writing from the Reader's Perspective (New York: Pearson

Longman Publishers, 2004), which explains the approach in sufficient
detail for one to learn how to teach it.

My textbook, derived from Expectations, , is The Sense of Structure: Writing from the Reader's Perspective (New York: Pearson Longman

Publishers, 2004).

For a collection of 140 proverbial tweets on the subject, see Gopen's Reader Expectation Approach to the English Language: A New

Tweetment. (Cupertino, CA: THiNKaha Publications, 2016.)

A 15-hour film of my lectures on REA will be available on Vimeo in late 2017. To access the first of the 12 episodes, without charge, connect to https://vimeopro.com/catch24video/gopenwriting. There you will also find testimonials from scientists who have benefitted from adopting REA in their writing of grant applications and research articles.
ggopen@duke.edu


[^0]:    ${ }^{1}$. Many have written well on the subject. To sample some of the best, see the work of Joseph Kimble, Veda Charrow, David Mellinkoff, and Robert Benson. Any of the publications of these four vibrant minds will be instructive. Here are some of their highlights. Joseph Kimble, "Plain English: A Charter for Clear Writing." Thomas M.Cooley Law Review, 9 (1992) 1-58. Veda Charrow, What Is "Plain English" Anyway? Document Design Center. Veda Charrow and Robert P. Charrow, Making Legal Language Understandable, 79 Columbia Law Review (1979), 1306 ff. David Mellinkoff, The Language of the Law, Wipf \& Stock Publishers, (2004). Robert W. Benson, "The End of Legalese: The Game Is Over." 13 NYU Review of Law and Social Change, (1984-5) 519-27.

[^1]:    2. "The Science of Scientific Writing." American Scientist 78 (1990), 550-8.
[^2]:    ${ }^{3}$. Other readability tests in wide use tend to count words, syllables, characters, and multisyllabic words and then submit them to impressive looking calculations or attractive graphs. To sample some of the better known ones, here is a representative list: Automated Readership Index (ARI); Coleman-Liau Index; Dale-Chall Readability Formula; Flesch-Kincaid Readability Tests; Fry Readability Formula; Gunning-Fog Index; Linsear Write; LIX; Raygor Estimate Graph; and

[^3]:    ${ }^{4}$. My work on Reader Expectations began in the 1980s with my decade-long collaboration with Joseph Williams, Gregory Colomb, and Frank Kinahan in the consulting firm we called Clearlines. It was preceded by the stunning work done by the scholars of the Prague School of Linguistics in the 1940s and 1950s. Bits and pieces of our writing advice for lawyers can be found as far back as the work of Cicero and Quintilian in the first century; but the discussion about rhetoric back then focused mainly on oral communication, not written. No one before us had amalgamated individual perceptions about the language into a functional system of advice that actually helped lawyers improve their control of written English. When I went solo, in 1990, I discovered why our advice worked. It all had something to do with how readers go about making sense out of text. Most of what I have discovered about written English comes out of my lifelong engagement with classical music.

[^4]:    ${ }^{54}$. For a full discussion of what the Stress position is and how it functions, see George D. Gopen, Expectations: Teac. Hing Writing from t. He Reader's Perspective. Pearson/Longman, 2004, Chapters 4 and 5.

[^5]:    ${ }^{6}$. Published by Arthur A. Levine Books, and imprint of Scholastic Press, 1999. The passages may be found on pages 189-90 (from "What with the promise" through "very grateful") and on page 252 (the full page).

[^6]:    ${ }^{7}$. See Footnote \#1 for some suggested readings.

[^7]:    ${ }^{8}$ I wish to thank Jen Zobel Bieber and Sarah B. Duncan for their careful reading of this manuscript and for their more than helpful comments.

