

Bible, there are also fundamentals, without which Christianity would not exist—the deity of Christ, His substitutionary atonement, and the inspiration of the Bible, to name a few.

A line can be described either by its slope (a ratio) or by its inclination (an angle). These terms describe the deviation from the horizontal, but the word *inclination* also has a non-mathematical meaning. Without Christ, man is inclined to sin. The Word of God should shape our attitudes (inclinations).

If you are given the length of two sides and the angle measure opposite one of those sides, you can use the law of sines to solve the triangle. However, this does not always determine a unique triangle. As a result, it is called the ambiguous case. *Ambiguous* means open to multiple interpretations. Some people say that you can interpret the Bible in any way that you want. However, there is no ambiguity in the Bible.

Use H = thing, S = season, T = time, and P = purpose to symbolize each of the following:

First half of Ecc. 3:1

Second half of Ecc. 3:1

A person is eccentric if his behavior deviates from normal. Jesus Christ expects His disciples to be eccentric, since living a Christlike life is not normal in this world (Titus 2:14). Likewise, in mathematics, conic sections are eccentric if they deviate from a circle. Eccentricity is a measure of this deviation. The eccentricity of an ellipse (e) is the ratio of focal distance (c) to the length of the semimajor axis (a): $e = \frac{c}{a}$. Since c and a are distances and $c < a$, the eccentricity of any ellipse is $0 < e < 1$.

The concept of limit can be used to illustrate an important truth. Suppose you lived eighty years and there was no life after death; your life on the earth would be $\frac{80}{80} = 1 = 100\%$ of your existence. Now, let's assume that your life after death was eighty years long: your earthly life would be $\frac{80}{160} = \frac{1}{2} = 50\%$ of your entire existence. If life after death were 720 years, your life here would be only $\frac{80}{(80+720)} = 0.1 = 10\%$. Now extend it to eternity: $\lim_{x \rightarrow \infty} \frac{80}{(80+x)} = 0$. In other words, this life is very insignificant in light of eternity. It is no wonder James said that life is "a vapour, that appeareth for a little time, and then vanisheth away."

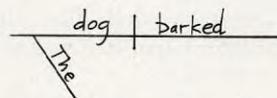
[Remembrance]

SISTER BERNADETTE'S BARKING DOG

By Kitty Burns Florey, from the current *Vocabulary Review*, an online literary journal. Florey is the author of *Solos*, published last August by Berkeley/Penguin.

Diagramming sentences is one of those lost skills, like darning socks or playing the sackbut, that no one seems to miss. Invented, or at least codified, in an 1877 text called *Higher Lessons in English*, by Alonzo Reed and Brainerd Kellogg, it swept through American public schools like the measles, and was embraced by teachers as the way to reform students who were engaged in "the cold-blooded murder of the English tongue" (to take Henry Higgins slightly out of context). By promoting the beautifully logical rules of syntax, diagramming would root out evils like "it's me" and "I ain't got none," until everyone wrote like Ralph Waldo Emerson, or at least James Fenimore Cooper.

In my own youth, many years after 1877, diagramming was still serious business. I learned it in the sixth grade from Sister Bernadette. I can still see her: a tiny nun with a sharp pink nose, confidently drawing a dead-straight horizontal line like a highway across the blackboard, flourishing her chalk in the air at the end of it, her veil flipping out behind her as she turned back to the class. "We begin," she said, "with a straight line." And then, in her firm and saintly script, she put words on the line, a noun and a verb—probably something like *dog barked*. Between the words she drew a short vertical slash, bisecting the line. Then she made a road that forked off at an angle—a short country lane under the word *dog*—and on it she wrote *The*.



That was it: subject, predicate, and the little modifying article that civilized the sentence—all of it made into a picture that was every bit as clear and informative as an actual portrait of a beagle in mid-woof. The thrilling part was that this was a picture not of the animal but of the words that stood for the animal and its noises. It was a representation of something both concrete and abstract. The diagram was a bit like art, a bit like mathematics. It was much more than words uttered or words written: it was a picture of language.

I was hooked. So, it seems, were many of my contemporaries. Among the myths that have attached themselves to memories of being educated in the Fifties is the notion that activities like diagramming sentences (along with memorizing poems and adding long columns of figures without a calculator) were pointless and monotonous. I thought diagramming was fun, and most of my friends who were subjected to it remember it, with varying degrees of delight. Some of us were better at it than others, but it was considered a kind of treat, a game that broke up the school day. You took a sentence, threw it against the wall, picked up the pieces, and put them together again, slotting each word into its pigeonhole. When you got it right, you made order and

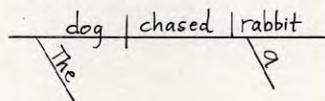
sense out of what we used all the time and took for granted: sentences.

Gertrude Stein, of all people, was a great fan of diagramming. "I really do not know that anything has ever been more exciting than diagramming sentences," she wrote in the early 1930s. "I like the feeling the everlasting feeling of sentences as they diagram themselves."

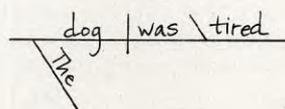
In my experience they didn't exactly diagram themselves; they had to be coaxed, if not wrestled. But—the feeling the everlasting feeling: if Gertrude Stein wasn't just riffing on the words, the love-song sound of them, she must have meant the glorious definiteness of the process. I remember loving the look of the sentences, short or long, once they were tidied into diagrams—the curious maplike shapes they made, the way the words settled primly along their horizontals like houses on a road, the way some roads were culs-de-sac and some were long meandering interstates with many exit ramps and scenic lookouts. And the clarity of it all, the ease with which—once they were laid open, their secrets exposed—those sentences could be comprehended.

On a more trivial level, part of the fun was being summoned to the blackboard to show off. There you stood, chalk in hand, while, with a glint in her eye, Sister Bernadette read off an especially tricky sentence. Compact, fastidious handwriting was an asset. A good spatial sense helped you arrange things so that the diagram didn't end up with the words jammed together against the edge of the blackboard like commuters in a subway car. The trick was to think fast, write fast, and not get rattled if you failed in the attempt.

As we became more proficient, the tasks got harder. There was great appeal in the Shaker-like simplicity of sentences like *The dog chased a rabbit* (subject, predicate, direct object), with their plain, no-nonsense diagrams:



But there were also lovable subtleties, like the way the line that set off a predicate adjective slanted back like a signpost toward the subject it modified:



Or the thorny rosebush created by diagramming a prepositional phrase modifying another prepositional phrase:

[Notice]
P.U.

From a circular sent on August 17 to Western Michigan University staff and students from the university's Building Custodial Support Services.

Due to the reduction of budget and human resources there has been a corresponding change in the building cleaning standards. Office, classroom, entertainment, and athletic facilities have been lowered from the Association of Higher Education Facilities Officers Level 2 cleaning standard to a Level 4 or 5. In order that expectations from existing funded staffing be better understood, the following is a description of Level 5 appearance levels, excerpted from the *Custodial Staffing Guidelines for Educational Facilities*.

Level 5: Unkempt Neglect

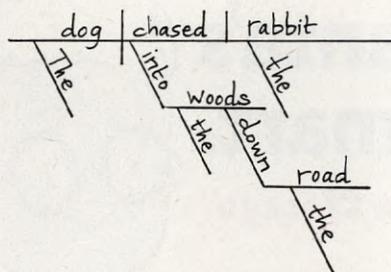
–Floors and carpets are dull, dirty, dingy, scuffed, and/or matted. Gum, stains, dirt, dust balls, and trash are broadcast.

–Light fixtures are dirty with dust balls and flies. Many lamps are burned out.

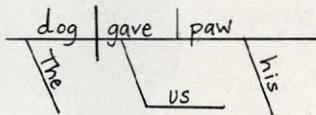
–Trash containers and pencil sharpeners overflow. Trash containers smell sour.

–All vertical and horizontal surfaces have major accumulations of dust, dirt, smudges, and fingerprints, all of which will be difficult to remove. Lack of attention is obvious.

We thank you in advance for your understanding and cooperation.

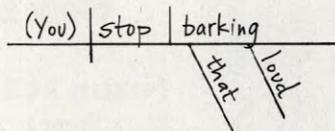


Or the elegant absence of the preposition when using an indirect object, indicated by a short road with no house on it:

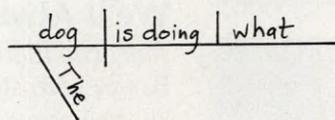


The missing preposition—in this case *to*—could also be placed on that road in parentheses, but this always seemed to me a clumsy solution, right up

there with explaining a pun. In a related situation, however, the void where the subject of an imperative sentence would go was better filled, to my mind, with the graphic and slightly menacing parenthesized pronoun, as in:



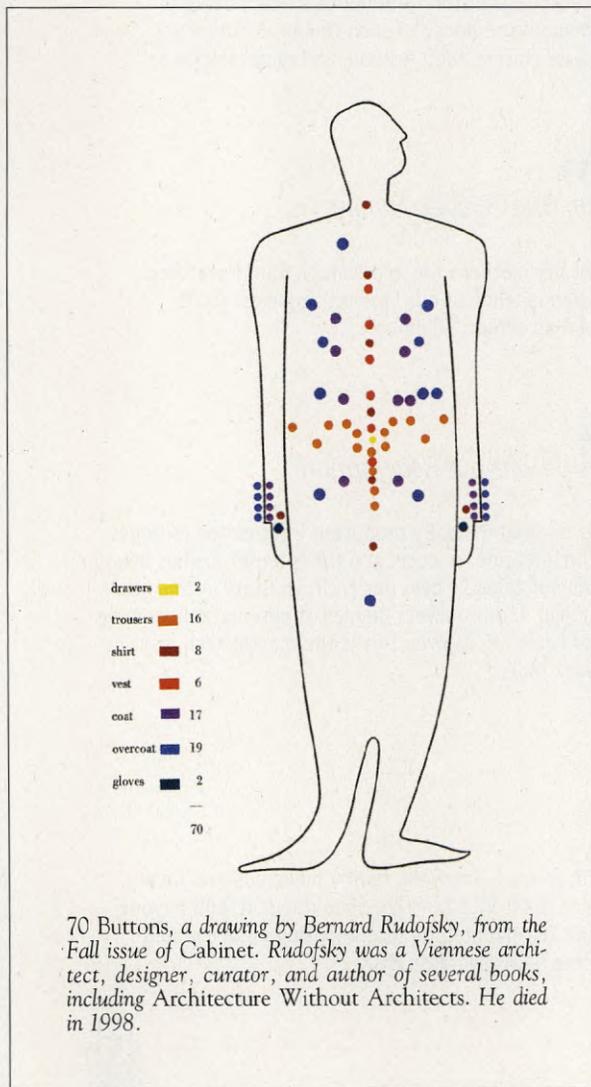
Questions were a special case. For diagramming, they had to be turned inside out, the way a sock has to be eased onto a foot: *What is the dog doing?* transformed into the more dramatic *The dog is doing what?*



Mostly we diagrammed sentences out of a grammar book, but sometimes we were assigned the task of making up our own, taking pleasure in coming up with wild Proustian wanderings that—kicking and screaming—had to be corralled, harnessed, and made to trot into the barn in neat rows.

Part of the fun of diagramming sentences was that it didn't matter what they said. The dog could bark, chew gum, play chess—in the world of diagramming, sentences weren't about meaning so much as they were about subject, predicate, object, and their various dependents or modifiers. If they were diagrammed properly, they always illustrated correct syntax, no matter how silly their content. We hung those sentences out like a wash until we understood every piece of them. We could see for ourselves the difference between *who* and *whom*. We knew what an adverb was, and we knew where in a sentence it went, and why it went there. We were aware of dangling modifiers because we could see them, quite literally, dangle.

Today, diagramming is not exactly dead, but for many years it has been in sharp decline. This is partly because diagramming sentences seems to double the task of the student, who has to learn a whole new set of rules—where does that pesky line go, and which way does it slant?—in order to illustrate a set of rules that, in fact, has been learned pretty thoroughly simply by immersion in the language from birth. It's only the subtleties that are difficult—*who* vs. *whom*, adjective vs. adverb, *it's I* vs. *it's me*—and most of those come from the mostly doomed attempt, in the early days of English grammar, to stuff English into the well-made boxes of Latin and Greek, which is some-



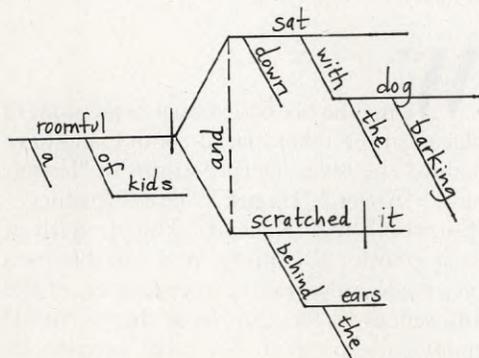
70 Buttons, a drawing by Bernard Rudofsky, from the Fall issue of *Cabinet*. Rudofsky was a Viennese architect, designer, curator, and author of several books, including *Architecture Without Architects*. He died in 1998.

thing like forcing a struggling cat into the carrier for a trip to the vet.

Another problem is that teachers—and certainly students—have become more willing to accept the idea that the sentences that can be popped into a diagram aren't always sentences anyone wants to write. One writer friend of mine says that she disliked diagramming because it meant "forcing sentences into conformity." And indeed language can be more supple and interesting than the patterns that perfect syntax forces on it. An attempt to diagram a sentence by James Joyce, or one by Henry James (whose style H. G. Wells compared so memorably to "a magnificent but painful hippopotamus resolved at any cost . . . upon picking up a pea"), will quickly demonstrate the limitations of Sister Bernadette's methods. Diagramming may have taught us to write more correctly—and maybe even to think more logically—but I don't think anyone would claim that it taught us to write well. And besides, any writer knows that the best way to learn to write good sentences is not to diagram them but to read them.

Still, like pocket watches and Gilbert & Sullivan operas, diagramming persists, alternately reviled and championed by linguists and grammarians. It can be found in university linguistics courses and on the websites of a few diehard enthusiasts. There are teachers' guides, should any teacher want one; it's taught in ESL courses and in progressive private schools. There's a video, *English Grammar: The Art of Diagramming Sentences*, that features a very 1950s-looking teacher named Miss Lamb working at a blackboard. There's even a computer program, apparently, that diagrams.

Sometimes, on a slow subway or a boring car trip, I mentally diagram a sentence, just as I occasionally try to remember the declension of *hic, haec, hoc* or the words to the second verse of "The Star-Spangled Banner." I have no illusions that diagramming sentences in my youth did anything for me, practically speaking. But, in an occasional fit of nostalgia, I like to bring back those golden afternoons when



[Translation]

ENGLISH AS A SECOND LANGUAGE

From a guide intended to help foreigners understand the idiosyncrasies of British English, found by a journalist for The Economist earlier this year on an office wall in the European Court of Justice.

What they say: I'm sure it's my fault.

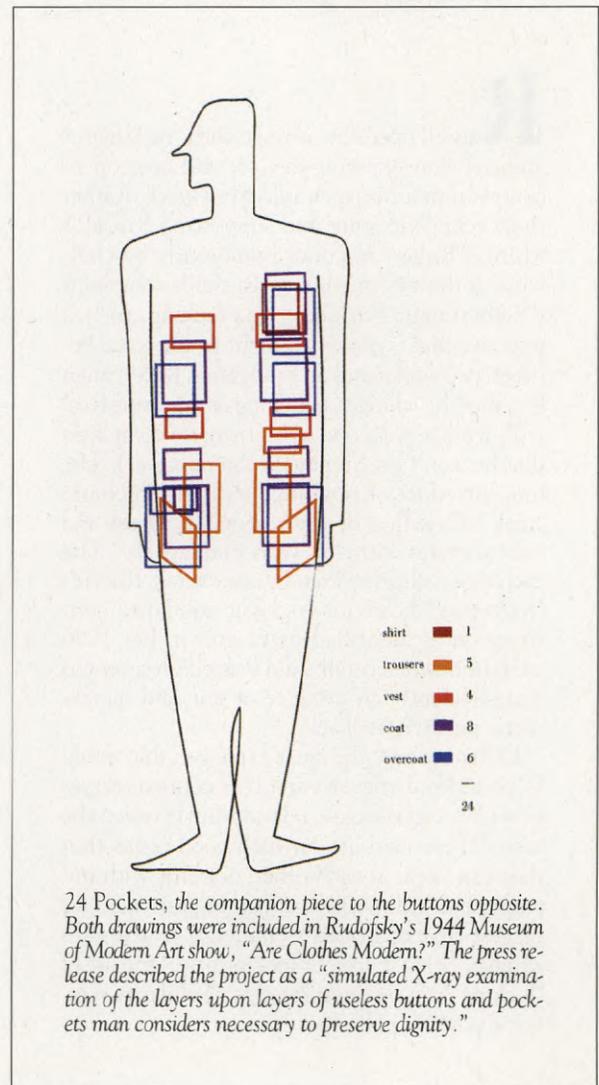
What is understood: It is his fault.

What they mean: It is your fault.

What they say: I'll bear it in mind.

What is understood: He will probably do it.

What they mean: I will do nothing about it.



24 Pockets, the companion piece to the buttons opposite. Both drawings were included in Rudofsky's 1944 Museum of Modern Art show, "Are Clothes Modern?" The press release described the project as a "simulated X-ray examination of the layers upon layers of useless buttons and pockets man considers necessary to preserve dignity."