ALONG THE LINES OF ~~WIRED~~ GYRED GRAMMARS IN THE OF FUTURE WRITING

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by Jimmy Butts

…those that govern islands must at least know grammar.
Samson from *Don Quixote*

What does it mean to ungrammar? After all, recheck that title of mine… "in the of?" You're quick little reading processor of a brain read right past that; didn't it? And what about that "you're"? You see, computers can't do this. By this, I mean that computers can't fix broken structures through interpretation and translation. Computers don't forgive when language doesn't act correctly. But a human—a human can forgive broken communication in the space of a yoctosecond without even thinking about it. There's something really human about accepting bad grammar. And the potential in that little slippage is the future of coding, which is to say, that is the future of composition and education too. I'm intensely interested in the paradox of grammars, namely that they define a prescriptive role for writers to take alongside a descriptive quality that helps us understand what we do when we write. In this vein, then, I'm interested in how grammar can help composers of different media to stand out, whether the composer is using the English language in its various forms or computer languages.

Standing "out" doesn't simply mean seeming impressive; the phrase also conveys a political stance, a stasis word, if you will, to stand outside the circle of community. To stand out is to resist the circles of *communitas* that keep us from going outside of the bounds of regulation that either imprison or protect us. Yet there is always a drive to resist—to compose outside of convention—to break rules—and to create new ones.

So, let us begin with a brief delineation—if you'll pardon the punning here—on grammar. No matter, there is something particular about the pun, the metaphor, which brings us to think differently about lines of text, the linearity of codes. These lines are wires, or strings, or woven texts. They are also gyres and can bend in captivating ways, which brings W.B. Yeats to mind, along with these lines from his poem, "The Second Coming":

> Turning and turning in the widening gyre
> The falcon cannot hear the falconer;
> Things fall apart; the centre cannot hold;
> Mere anarchy is loosed upon the world, (89)

The center not holding is, of course, a tenet of deconstruction that leads one to remember Derrida's assertion that "the center is not the center" (*Writing* 279), but also that "As center, it is the point at which the substitution of contents, elements, or terms is no longer possible. At the center, the permutation or the transformation of elements (which may of course be structures enclosed within a structure) is forbidden" (*Writing* 279). Hence, the structure of languages both enables and cuts off free play of meaning, but this flexural quality of language differs depending on the kind of grammar in consideration.

In addition to gyres, certain kinds of linearity in codified communication can connote chains. Luce Irigaray writes about the chains of language, referring back to the prisoners of Plato's cave in *The Speculum of the Other Woman*, she speculates, "Chained up like ourselves—I might say—backs to the origin, staring forward.

Chained up more specifically by the effects of a certain language, of certain norms of language that are sometimes called *concatenation*, or chain of propositions, for example" (259). Normative grammars are fundamental to the new languages of computing. A fundamentalism rests in those languages that I wonder how we can question. How might one begin to ungrammar the languages of computers the way we have done with English language? The way Mark Twain did with "ain't." The way William Faulkner did with an apostropheless "cant." The way that Gertrude Stein did with her long, long run on sentences that never stopped because she couldn't she wanted to know what might happen if she just kept right on saying what was in her heart and her mind and her soul too until there was nothing left to say for ever and ever and ever.

Grammar is primarily viewed as being connected to linguistics and natural languages. To explore the meaning of grammar historically, we could begin with the Greek, the origin of the gramme, the graphein, the mark, which Derrida so thoughtfully reminds us of in *Of Grammatology* is also the trace of thought that is unrepresentable. In that text, he explores the concept of different kinds of writing including cinematography, choreography, musical, sculptural, athletic writing, mathematics, biological inscription, and so on, each with its own grammar (9). Derrida conjectures,

> Whether it has essential limits or not, the entire field covered by the cybernetic *program* will be the field of writing. If the theory of cybernetics is by itself to oust all metaphysical concepts—including concepts of the soul, of life, of value, of choice, of memory—which until recently served to separate the machine from man, it must conserve the notion of writing, trace, gramme [written mark], or grapheme, until its own historico-metaphysical character is also exposed. Even before being determined as human (with all the distinctive characteristics that have always been attributed to man and the entire system of significations that they imply) or nonhuman, the *gramme*—or the *grapheme*—would thus name the element. (*Grammatology* 9)

The element of writing is grounded in various kinds of grammes, which are marks, but the ordering of those marks becomes writing, with a sensibility, a grammar, to that organization. Derrida continues after exploring various kinds of writing to announce that alphabetic writing, in comparison to mathematical writing, is of course paradoxically seen as both more and less sensible (*Grammatology* 10). Alphabetic writing can be made phonetic in a way that the codes of mathematics cannot.

The use of grammar, no matter the form, often arises with the intent of conveying clean thought. Precision in language is a goal of much rhetorical study. Around the first century, Dionysius of Thracis is known for establishing the first guidebook concerning grammar: *Tekne Grammatike*. And the idea that it is a *guide*book at all is enough to give us some pause. He begins his short textbook with a definition: "Grammar is an experimental knowledge of the usages of languages of

language as generally current among poets and prose writers" (3). Thrax then goes on to explain how this empirical science is broken into six parts, which includes "dialectical peculiarities" (3). The peculiarities of a language are what make up a portion of the study of it, and yet our modern notions of grammar have been colored by the 18th century enlightenment ideas of truth, reason, correctness, and even mathematics.

One of the contributors to Enlightenment conceptions of grammar, Robert Lowth of the Royal Society, published *A Short Introduction to English Grammar* in 1794, which begins like this: "Grammar is the art of rightly expressing our thoughts by words. Grammar in general, or universal grammar, explains the principles, which are common to all languages" (1). Influences of the study of Latin, the practice of reason, and avoiding error in the worship of neoclassicism led to books that carefully set out the correctness of the rules. Neoclassical ideals resuscitated concepts of grammaticality that were developed with the Greeks.

In 1921, the British stopped teaching grammar. The government issued a report explaining that it was "impossible at the present juncture to teach English grammar in the schools for the simple reason that no one knows exactly what it is" (qtd in Hudson and Walmsley 601). In a 1963 report, American educational systems followed the British, asserting "In view of the widespread agreement of research studies based upon many types of students and teachers, the conclusion can be stated in strong and unqualified terms: the teaching of formal grammar has a negligible or, because it usually displaces some instruction and practice in actual composition, even a harmful effect on the improvement of writing" (Braddock et al. 37-38). Peter Elbow too, as a central figure of composition studies, has asserted: "Learning grammar is a formidable task that takes crucial energy away from working on your writing, and worse yet, the process of learning grammar interferes with writing. […] For most people, nothing helps their writing so much as learning to ignore grammar as they write" (169). So, grammar is now deprecated. Knowing the art of these structures lies in the gutter of educational discourse, and there is now a new urgency, an expediency, for thinking about how these rules function within different media.

I should confess that I have taken Latin and have diagrammed sentences, so I understand that I am coming from a particular bias here. And while I certainly understand the shift away from explicit discussions of grammar in the English classroom, I'm afraid that our extreme shift away from that kind of pedagogy will make English courses a disservice as new forms of composition enter our curriculum. I am no school marm. However, I do believe that a conscientious study and application of grammars may prove to be an avenue for inventive strategies in the midst of a time when computers squelch breaks in code and language rushes past our eyes and our ears—and our hands, noses, and tongues—in pithy blurbs at superluminal speeds.

And yet, we have more languages now. We now have books with titles that declare these new grammars, such as *Visual Grammar* by Christian Leborg, *A Visual Language: Elements of Design* by David Cohen and Scott Anderson, and *Reading*

Images: The Grammar of Visual Design by Gunther Kress and Theo van Leeuwen. So, where does this leave us? Are we in an age where we must rethink something as old, and worn out as grammar? I believe that the shifts in visual culture, rhetorics, and design, alongside the new grounds with digital languages have placed grammarians, broadly conceived, at quite an impasse. Transdisciplinarity, specifically the sharing of terms, has left grammar in a new place in our time. So, this essay is a call for a new perspective of transdisciplinary grammars, one that views structures of images, and text, and computer codes, and numbers each as kinds of grammar. Grammar has always in a sense been mathematical, an ordering of syntax, a balance of words so that sentences function like beautiful equations. But the grammar of sentences can be beautiful and unbalanced in a way that mathematical functions or lines of javascript cannot.

Jeanne Herndon's text, *A Survey of Modern Grammars*, gives us this definition that begins to move outside of natural languages: "The system of organization of any language is the **grammar** of that language" (4). At the present time, then, one might define grammar as the field that regards the structure and organization of the components of any language. Instead of comparative literature, let us practice for a moment in light of shifts in the way we view languages and English studies, some comparative grammars.

So, I argue that while those who are engaged in composing new media increasingly require a deeper understanding of new grammars—that of hypertext markup language or javascript, our students of writing must continue to learn grammar so that they can then ungrammar in their writing, one last frontier where rules may be creatively broken because the readers of literate texts are much more gracious and open to experimentation than the machines that interpret our new media compositions.

Programming languages are used to communicate with a machine, which then interprets that message for the human audience. English, or Italian, or French, or Spanish, written or spoken, are used to communicate with humans, who are not machines, and can interpret a beautiful array of breaks in the code, manipulations of it, and do wondrous things that computers, I believe, will never be able to do. So, let us not give up grammar and writing just yet, as we learn these new scripts, these action scripts that move metal and electrons, which makes me pause and wonder if reading James Joyce's writing moves electrons in me. After all, Joyce knew what it meant to ungrammar. He wrote in a letter to his patroness and friend Harriet Shaw Weaver, "One great part of every human existence is passed in a state which cannot be rendered sensible by the use of wideawake language, cutanddry grammar, and goahead plot" (318). It's the "cutanddry" that makes certain grammars problematic because those grammars do not address the sensibilities of every human experience. And as computers require their own grammars, for they are a new kind of audience that requires stringent adherence to the rules; meanwhile, our experience as humans is being increasingly interpolated by those mechanized structures.

Computers Can't Ungrammar

Several definitions of grammar assign grammar to only refer to the syntax and rules of natural languages, which don't include computer programming languages. Yet, in computer programming there is parsing, syntax, errors, and even punctuation. Meanwhile, hackers have to be clever enough to know the code in order to play with it. Yet, the codes used by computers resist bending much more than the codes used by humans. Computers can't ungrammar. They cannot accept a break in the code, an unfinished line, a creative replacement. Computers represent a different kind of reader. For human writers, there are creative ways of manipulating code, but the code must never be broken in computer languages, or there will be no communication. Stuttering is unacceptable. "Ums" are impermissible. Fragments don't work. There is a protocol that must be followed with the grammars of computational languages that is resistant to… interesting forms of deconstruction.

Alexander R. Galloway writes about the nature of protocol in computer processing as enacting power structures over communicative expressions. He writes in his book *Protocol*, "A protocol is a set of rules that defines a technical standard. But from a formal perspective, protocol is a type of object. It is a very special kind of object. Protocol is a universal description language for objects. *Protocol is a language that regulates flow, directs netspace, codes relationships, and connects life-forms*" (74). The technical standardizations of various grammars do regulate, direct, and connect. But they also connect concepts for us as humans. These protocols of grammar moderate our interrelationships, our means of communication and community, along with that which is permissible by the objective protocols of programmed languages.

Galloway continues by noting, "Media critic Friedrich Kittler has noted that in order for one to understand contemporary culture, one must understand at least one natural language and at least one computer language. It is my position that the largest oversight in contemporary literary studies is the inability to place computer languages on par with natural languages" (xxiv). This equation we have already addressed, but I wonder if there is something more at hand than merely equating the two kinds of languages here. Placing computer languages on par, on equal terms, might be beneficial, but not just so that we can see their similarities, but also their differences.

Lev Manovich offers the following insight on this analogous thinking in *The Language of New Media*: "To make an analogy with the grammar of a natural language as described in Noam Chomsky's early linguistic theory, we can compare a hypermedia structure that specifies connections between nodes with the deep structure of a sentence; a particular hypermedia text can then be compared with a particular sentence in a natural language" (41). This comparison is certainly what we are trying for here, but what do we get from the comparison of hypermedia text and a sentence? Manovich suggests a deep structure between nodes. Does the sequencing from subject to predicate parallel the linearity between opened and closed tags, <head> </head>?

A new question presents itself in the comparison. Does the newnesss of a language or system resist play? That is, since English has had time to move and sway, is it more flexible than the newer languages such as javascript? When a code is new, there seems to a natural tendency to abide by its rules. Of course, the opposite conjecture can be made, that a new language is still creating rules, that it is still germinating its grammar. Still, English is the language of code. HTML uses English, but is, in fact, *more* standardized than its predecessor. Yet, the form of language that we choose in this moment will influence how we can shape the forms of communication to come.

When I write PHP scripts, which is not often—I am no code jockey—but when I am forced to for a website, I am reminded of the strictness of this computational grammar, as in this example:

```
<?php

$therule = "Hello";
$_twist = $therule;
$_twist = "Grammar";
echo $therule;
//  -"Hello"

$therule = "Hello";
$_twist = &$therule;
$_twist = "Grammar";
echo $therule;
//  -"Grammar"

?>
```

I learned the format of this code from Jason Caldwell, the lead developer for the S2Member plugin for Wordpress. Wordpress is now a predominant software structure for building websites, and the motto for the software is: CODE IS POETRY. I really like this assertion, but poetry is also much more open to code that doesn't follow the conventions of specific grammars. There is a strange paradox in the congruity of code and poetic language. The only difference between the two codes in the example above is an *ampersand*, and it entirely changes the code output. The first syntax gives you "Hello" and the second gives you "Grammar." So what? Well, English professors have been beating punctilious attention to minor punctuation into their resistant students for decades. And now there are all these new stark languages with unyielding grammars. Don't get me wrong. There's something really beautiful about the cool, smooth, contempo-techno surface of perfectly formed lines of code, slick as carbon fiber, smooth as silicon. Still, languages such as HTML or PHP require careful considerations of punctuation among other things. Forget your virgule in the closing head tag, and the computer won't read it. You'll have no head without that *slash*.

But there are other places where we can see grammar's inflexibility. In ReCaptcha entry boxes, how many times have I had to reenter a word that I failed to

read or type perfectly? What am I supposed to type here: “plonear dolz]?” I am being told that these words come from old books, yet these are not words.

Google also offers an interesting subject for this problem of language interpretation and code. Google’s “Did You Mean” feature comes closer to a machine reader attempting to fill in the gap of interpretation, that is filling in the blanks, or reader correction that humans can do with natural languages that computers cannot often do. And Google is working hard to get machines to understand the meaning of its users’ natural languages when placed in relationship with its algorithms. Still, there are two Wikipedia articles that come up from a Google search of programming languages: “List of Programming Languages” and “Lists of Programming Languages.” The error comes form a problem in computers’ inability to interpolate, to fix instead of follow the code. So, there are two pages because of an “s” that the computer cannot look past, but that a human reader would quickly repair without much thought.

Still, Google, among other places, can be arguably said to be one source for some of the best code being written today. Google is working to develop code that responds to humans in all kinds of surprising ways. So, in light of this excursus on the lines and wires of writing, I find this interesting example of their code. Here is a snippet of the page source from July 22, 2011:

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0.0367,0]},{c:[[0.1133,-0.0367,0],[0.1105,-0.0436,0]],v:[0.1109,-0.0391,0]},{c:[[0.1109,-0.0391,0],[0.1118,-0.0385,0]],v:[0.1116,-0.0373,0]}]}),new
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0.0891,0],[-0.1694,-0.0852,0]],v:[-0.1473,-0.0922,0]},{c:[[-0.1473,-0.0922,0],[-0.1423,-0.0927,0]],v:[-0.1514,-0.1063,0]},{c:[[-0.1514,-0.1063,0],[-
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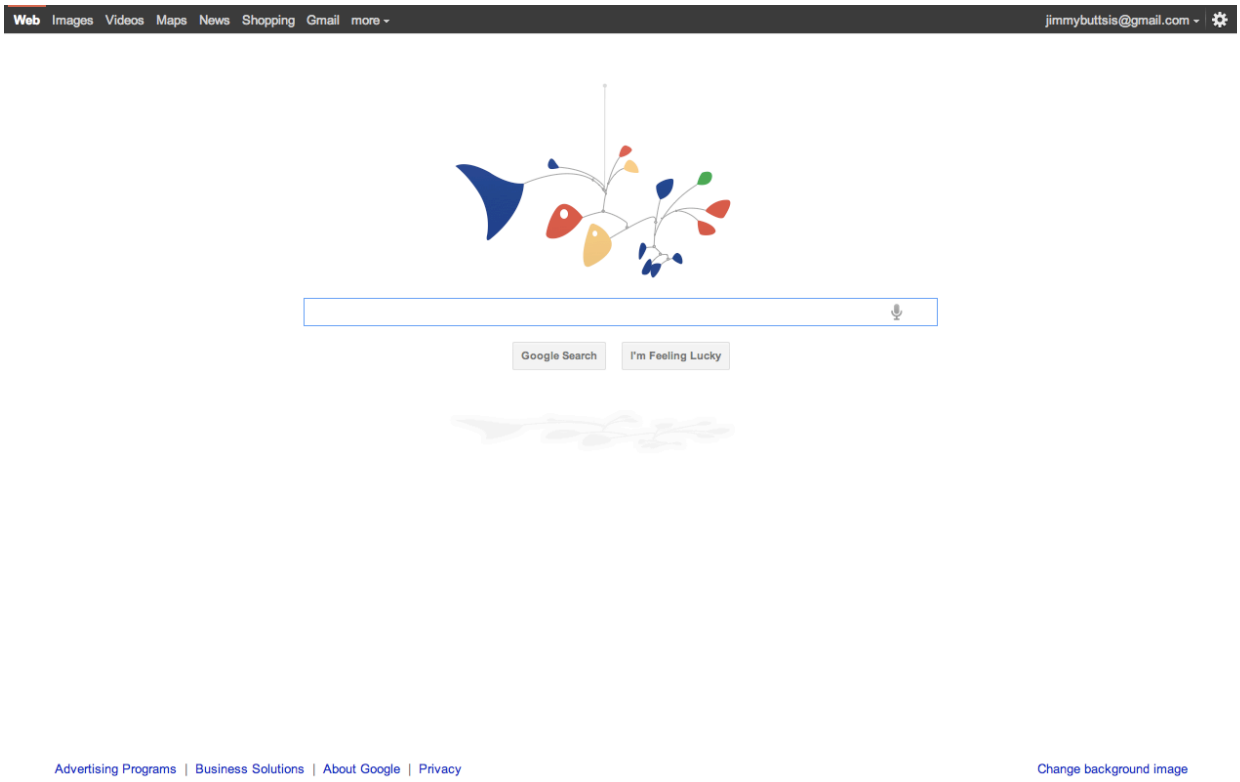
0.1421,0]],v:[0.0885,-0.1301,0]},{c:[[0.0885,-0.1301,0],[0.1093,-0.1184,0]],v:[0.113,-0.0823,0]},{c:[[0.113,-0.0823,0],[0.1149,-0.0773,0]],v:[0.1089,-

What is it? In particular, these lines are composed of HTML 5 that pinpoint individual dots on the page, and the code runs for much longer than this simple section, but what did the user see on that day? This code comes from artist Alexander Calder's birthday (and my brother's). Calder made captivating artworks with high wires. Google memorialized him by this GUI (graphical user interface) on its homepage, one of Google's tropes known as the Google Doodle.

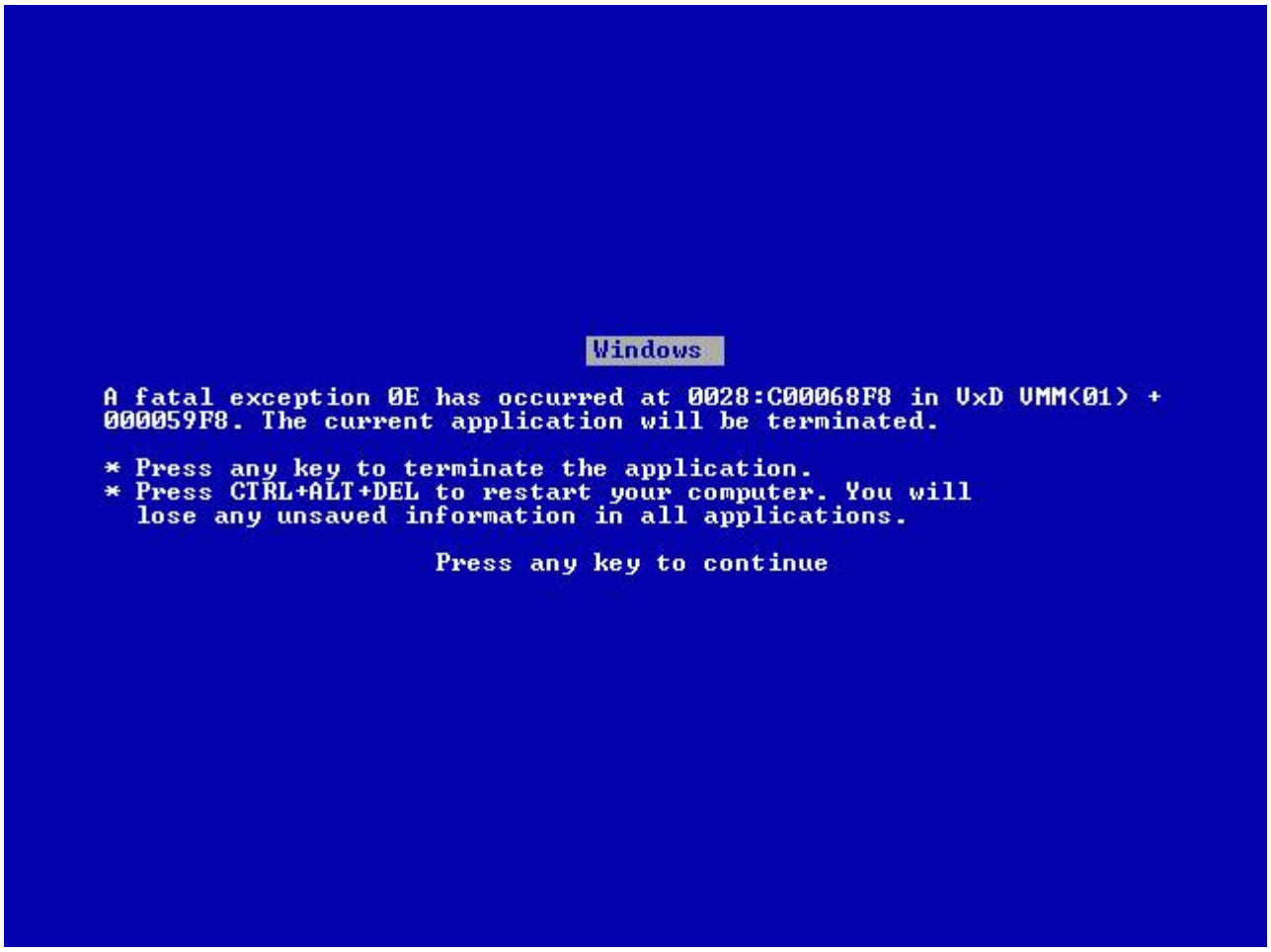


So, here is Google's tribute to an artistic use of high wires, written with long lines of code. It looks so simple. There is so much white space. The image here was not just an image, but the elements moved and swayed the way that Calder's mobiles did, and this is because the parts of the image were coded and placed using hypertext. The implication that a language can create moving images is quite astounding to me as a composition teacher. Here, one notices that language can sculpt objects, that color is represented using binary code that runs through the computer. The English language itself runs through computer mainframes in binary, in ones and zeros, unreadable to humans. This translation may be viewed as a kind of *ekphrasis*, a Platonic translation of forms.

What is simultaneously wonderful and challenging to us as contemporary compositionists is that computers won't allow a scribble. They won't allow a mar. For artists and writers, sometimes a mar is the strongest means someone has of getting someone's attention. But there's also a disconnect between what one writes in the code and what the user sees on the page. So, the aspects of visual grammar and the grammar of programming languages are different when it comes to the interface of the page. The page. After all, how are Lawrence Sterne's scribbles across the page translated into ASCII when *Tristram Shandy* is translated for Project Gutenberg? Like so: "(four very squiggly lines across the page signed Inv.T.S and Scw.T.S)" (n.p.). How disappointing. Sometimes, the translation cannot take place. One code cannot always handle the elements of another. Grammars have borders, particularly the grammars of machines. Those borders can be dangerous.

Fatal Errors

One way in which grammars have borders is that errors are sometimes fatal. Computers will give their users a fatal error when code doesn't run as planned. This is fatal for the software, not for the user. Fatal errors offer an interesting expediency for correctness when it comes to lines of code, lines of text. The Windows operating system, for example, is now famous for its "blue screen of death," which is a fatal error in the code.



According to Microsoft's website:

> Fatal exception errors are codes that are returned by a program in the following cases:
>
> - Access to an illegal instruction has been encountered
> - Invalid data or code has been accessed
> - The privilege level of an operation is invalid
>
> When any of these cases occurs, the processor returns an exception to the operating system, which in turn is handled as a fatal exception error. In many

> cases the exception is non-recoverable and the system must either be restarted or shut down, depending upon the severity of the error. ("What Are Fatal Exception Errors")

Here, we see a fatal error in lines of written code that have occurred because the lines were invalid or illegal. There is nothing to do but start again. But, computers are unique in this problem. With English, can you imagine, some miscommunication occurring in the middle of an hour-long conversation, and having to start over from the beginning, to reboot? English speakers and hearers are usually able to work through errors in communication. Computers are not so accommodating.

One of my favorite fatal errors when it comes to grammar is when we open up a package and find a small little white package that reads:

> DESSICCANT
> SILICA GEL
> THROW AWAY
> "DO NOT EAT"

So, imagine saying, "Do not eat," using air quotes. This isn't ironic. This isn't a joke. They really mean don't eat the silica gel. But, if one were to read this package's message ironically, the result could be fatal. So, why the incorrect grammatical quotation marks? For emphasis. There is grammar that leads to death, but there are different kinds of death: the death of the reader, the death of creativity, the death of the text.

Let's look at one other fatal error. According to the American Standards and Test Methods, ASTM F963: Label Requirements, mandatorily issued by the American government, toys with small parts must be labeled like this:

> /!\ WARNING:
> CHOKING HAZARD - Small parts.
> Not for children under 3 yrs.

A sentence fragment is required by the U.S. Government. I love it. In addition to this kind of move, in 2010 there was a law passed in the United States that requires government agencies to write in clear prose. The initiative is all laid out at plainlanguage.gov. "Small parts." The sentence fragment pertains to the potential of choking children, and yet, this is one reason that grammar instruction has ceased being taught, isn't it? That grammar somehow chokes its students into being unable to communicate?

And What About the Students?

And what about the students, after all? Aren't they the reason that we should consider how we teach them various structures, strictures, in our language? Since

2005, the SAT Reasoning Test has included a writing section. According to the website for the SAT, the essay "measures your ability" to:

- develop a point of view on an issue presented in an excerpt
- support your point of view using reasoning and examples from your reading, studies, experience, or observations
- follow the conventions of standard written English ("The Essay")

Following standardized conventions is an interesting prospect for my students whom I want to write more creatively, to develop their style, to think outside of the box.

> We want students to know that there are no shortcuts to success on the SAT essay. The high school and college teachers who will score your essay have seen it all before. These teachers are not going to give high scores to an essay just because it is long, or has five paragraphs, or uses literary examples. The scorers are experts at identifying truly good writing--essays that insightfully develop a point of view with appropriate reasons and examples and use language skillfully. ("The Essay")

It is interesting to me that the test mentions five paragraphs, the sacred structure. Here, it certainly seems as though the test makers want students to be creative, to write in unique ways, but there is also this requisite for using language "skillfully." And there is a paradox for using language skillfully as to whether that means deftly following the rules of Standard Edited English or creatively bending them.

I try to teach my students Standard Edited English. But I'm well aware that the standards are flexible, and depend intensely upon context. Some argue that there is no such thing as Standard Edited English; the language is too complex to standardize. Still, my students and I conduct a five-minute grammar review before each class. I teach them the difference between "lie" and "lay," and that when they are getting a tan they are actually lying out. All of this comes in large part from a mentor that I had during my undergraduate education named Dr. Bonnie Devet. She is still there at my old *alma mater* running the writing center today. She taught me advanced grammar, and I am so thankful for it.

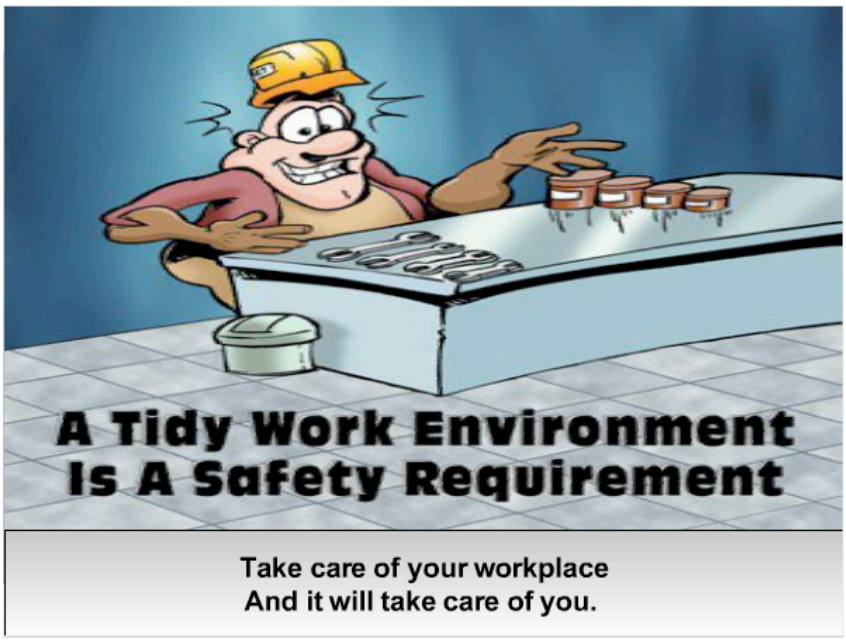
(I'm thankful to know that I've created that new independent clause in the previous sentence and that I need that comma because an "and" isn't strong enough to hold those two clauses together on its own. Thankful that I know that "its" in the last sentence doesn't require an apostrophe because it's possessive. Thankful that I'm conscious that this sentence and the previous one are actually fragments missing their subjects, but intentional ones, used for the sake of style.)

Devet writes that "so-called 'errors' can be discoveries" (130), and that concept stuck with me. Broken rules aren't always bad or wrong or stupid. So, I teach grammar. And my students really drink it up. They want to remember what a noun is. They want to know where to place their commas. Then, I teach my students

how, and when, and where they might bend and break those rules for effect. I teach my students to ungrammar, to gyre.

But, when my student unwittingly puts "u" instead of "you" in his college level essay, well, this surprising structure is not the kind of creative, and conscious ungrammaring that I have in mind. Yet these things happen, and there is something very different about the unwitting break and the witting one. Devet teaches that there are reasons for these unwitting breaks. But there're stigmas connected to that kind of writing that I am trying to help those students escape in their future lives, professional and otherwise.

Yet, in that potential future professional world, grammars sometimes matter and sometimes don't. I know of people who have been fired for their poor grammar, for a lack of savvy in communication, for an inability to find and execute the available means of persuasion well. But there are places where grammatical looseness is all but par for the course. There are instructional PowerPoint slideshows I have seen that present interesting nonstandard grammatical constructions.

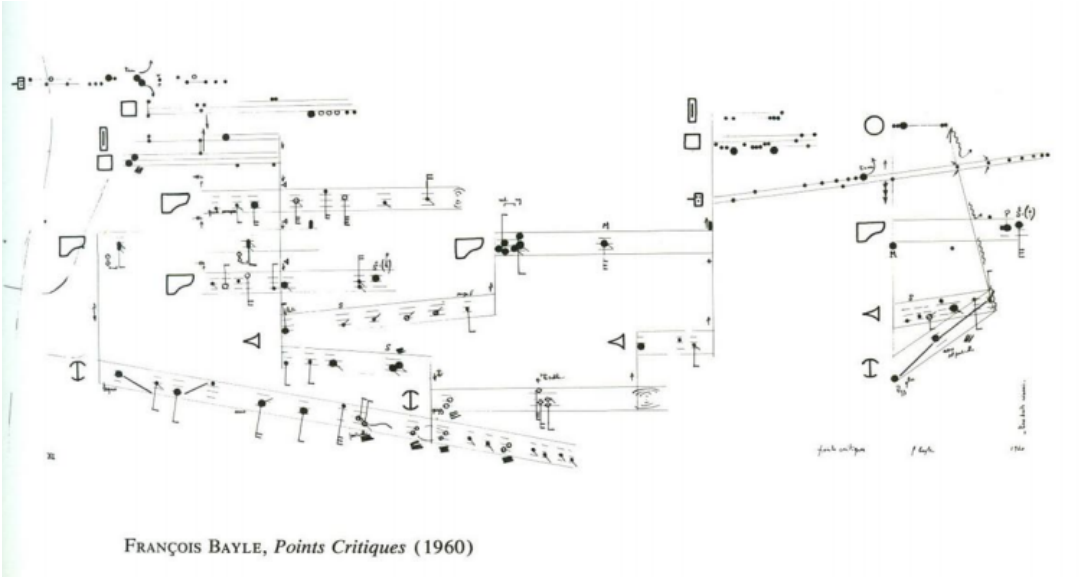


(Greekhero)

Look at that sentence at the bottom: "Take care of your workplace And it will take care of you." There are two independent clauses, one period, and two capitalized words. Because of the spacing of the layout, the composer doesn't feel the obligation to place a period after workplace, or, alternatively, to insert a comma and uncapitalize the "and." In other words, the places my students are going, the real world, maintain some degree of leniency toward written and spoken grammars. A strange diversity of registers exists in professional communication practices. However, there is no leniency in coded grammars—the grammars of machines. With

computational grammars, there is only one register, and this is a distinction that should give us some pause as we educate students for a future of technological relationships. Technology can't ignore mistakes. Computers, grey, large, and powerful, like elephants can't forget. They always remember the rules the way that human readers and writers do not.

Still, there are students who are ready to enter a world of various degrees of leniency with a great amount of *savoir-faire*. Lindsay Walker, a former student of mine, wrote an essay for me called "I Just Want to Bang on the Drum All Day" for my English 103 composition class at Clemson University. She began the essay by writing, "1 &a 23 a 4 &. Confused? Only somebody who is music literate would understand. Though the letters and numbers seem to be nothing but nonsense, they have great meaning to a musician" (Walker 1). I beamed. I glowed. I was astonished and amazed. Having her create an unconventional opening sentence like that by bending the rules of composition was precisely what I want from my students. Lindsay's clever opening made me think of John Cage and others' unconventional grammars of musical notations, inventive and affective, as in this example from Cage's *Notations* by François Bayle.



FRANÇOIS BAYLE, *Points Critiques* (1960)

Instead of simply following the grammar, Lindsay and John Cage both played or experimented with it, and surprised their audiences into shock, awe, and wonder. Ungrammaring is a wonderful rhetorical strategy, one that we can't afford not to teach our students. (I know… double negatives are wonderful things.)

So, in some ways I am surprised that those involved in composition and rhetoric aren't really talking about grammar. Since it ceased being taught, folks are now just afraid of it. Yet, I am inclined to see new potential in grammar instruction, if we begin to think about grammar more broadly. I echo educators such as Martha Kolln, Laura R. Micciche, and David Crystal, who call for instruction involving

grammar. Micciche bids us, "Rhetorical grammar instruction, I argue here, is just as central to composition's driving commitment to teach critical thinking and cultural critique as is reading rhetorically, understanding the significance of cultural difference, and engaging in community work through service-learning initiatives" (717-718). Doing otherwise, I'm afraid, in this moment of technological invention would be a disservice in our classrooms.

Of course, there are errors even in this essay. There are errors in lots of essays; I'm not worried so much about catching every error. I am writing for humans after all. I am, however, worried about students not being able to invent their writing composition in the future because they are ignorant of the structures that make up the medium in which they're composing.

Wires are tricky things, but so are people. Wires hold everything in place, hold people, and often trip us up while we're running along. We still read linearly, in lines of text or code or shapes. Thinking of the sensible syntax of language might be a bit like thinking about connecting sewer lines, telephone lines, gas lines. These are lines of logic, infrastructures that will not work without the correct grammar. The same lines of logic that created the strong grounds for grammar in the 17th century, which were based on mathematics, where the equals sign and the verb "to be" were found to be… well… equal.

Our "reading software" as humans is amazingly flexible, and reading by using these new grammars reminds me of Cypher, the character from *The Matrix*. And as he looks at the screens, with green phosphor digital rain falling down in various figures, he sees what the code is. He sees what lies beyond the grammar.

> Neo : Is that...
> Cypher : The Matrix? Yeah.
> Neo : Do you always look at it encoded?
> Cypher : Well, you have to. The image translators work for the construct program. But there's way too much information to decode the Matrix. You get used to it...I, I don't even see the code. All *I* see is...blond, brunette, red-head...
> Cypher gestures towards the monitors. (A. Wachowski and L. Wachowski)

Being able to look at code, and then through it offers a way of seeing that is striking more powerful than our computer readers. The new writing always already has an oscillation of making the grammar of the composition present for its audience. First, you see the structure, and then you don't like the oscillation with seeing that happens with so many forms, a concept derived from Richard Lanham's *The Economics of Attention*. In that book, Lanham tells us, "A comprehensive economics of attention will include both these ways of looking at the world and how we are to relate to them. It must be built on the perceptual oscillation that allows us to focus both in our minds at once" (22). This brings us to the problematic nature of consciousness when it comes to a purely structuralist view of compositional grammars. This approach offers us the opportunity to become compositionists instead of robots, as long as we learn to successfully grapple with the rule in

interesting ways, to hold both grammar and ungrammar simultaneously. So, I close by offering this conceit: How do we become, like Pinocchio, wireless and real? How do we escape contrived artificialities of convention that keep us from inventional—but honest—composition strategies? How do we unfetter ourselves and our communications from the long lines, strings, cords, ropes of tradition that hold us ever back into our selfsame being?

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