10.31.2013 | Class 17 Week 9

- Jumbled sentence: "why intensify violence...?"
- Text reconstruction: violence in fairy tales
- Coordinators, subordinators, & punctuation
- "Fancy FANBOYS": HOTSHOTCAT
- "Fancy FANBOYS" versus subordinating conjunctions (or subordinators)
- Finite and nonfinite verbs
- Annotated handouts from Sierra College Compounding methods & subordinators & punctuation for dependent clauses
- Sentence combining: compound sentences using semicolon, "fancy FANBOYS," and comma
- Content words versus function words
- "Your Use of Pronouns Reveals Your Personality" by James W. Pennebaker
- "The Secret Language Code" by Gareth Cook *Scientific American* August 16, 2011
- Quiz: Mother Hulda
- Quiz: Cinderella
- G.K. Chesterton on fairy tales

**JUMBLED
SENTENCE**

**Tatar on intensifying violence
in the revision of Grimm's
fairy tales**

NAME _____

DATE _____

INSTRUCTIONS: Unscramble the list below to produce a sentence by Maria Tatar. The word that begins the sentence is capitalized, and there is a period after the final word of the sentence.

Write the complete sentence below the list.

_____	of evildoers
_____	of children.
__4__	the punishment
_____	to reach
_____	to portray
_____	But why intensify violence
__6__	if one is aiming
__2__	or take pains
_____	an audience

_____

_____

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_____

ANSWER

But why intensify violence or take pains to portray the punishment of evildoers if one is aiming to reach an audience of children?

Tatar, Maria. *The Hard Facts of the Grimms' Fairy Tales*. Expanded Second Edition. Princeton, NJ: Princeton University Press, 2003. Print. (20-21).

___5___ of evildoers

___9___ of children.

___4___ the punishment

___7___ to reach

___3___ to portray

___1___ But why intensify violence

___6___ if one is aiming

___2___ or take pains

___8___ an audience

1. But why intensify violence
2. or take pains
3. to portray
4. the punishment
5. of evildoers
6. if one is aiming
7. to reach
8. an audience
9. of children?

NAME: _____

DATE: _____

Text reconstruction

INSTRUCTIONS: Number the sentences in the order you believe they appear in the original paragraph, which discusses violence in fairy tales. (Notice that the last sentence ends with a colon.)

Then copy the paragraph word for word on the lines below. IMPORTANT: Don't copy the passage one word at a time. Try to copy 5 to 10 words at a time from memory.

VOCABULARY
pedagogy – NOUN – The art or science of teaching and educational methods.

punitive – ADJECTIVE – Something that is involved with punishment. e.g.: "punitive damages" – court-ordered payments large enough to punish the person in the wrong.

retribution – NOUN – Something done to get back at someone, or the act of punishing someone for his or her actions.

Definitions adapted from YouDictionary.com
Paragraph adapted from: Harries, Elizabeth Wanning. "The Violence of Lambs." *Marvels & Tales*. 19.1 (2005): 54-66. Print.

_____ Most of the violence is punitive,[*] as Maria Tatar and others have shown.

_____ all come to a bloody end.

_____ The Grimm brothers in particular loved to end their tales in violent retribution.

_____ Its purpose is to educate children in a "pedagogy of fear."

_____ Fairy tales are violent.

_____ The wicked stepmother in "Snow White," who must dance to her death in red-hot iron shoes; the wicked stepsisters in "Cinderella," whose eyes are pecked out by doves; the wicked stepmother in "The Juniper Tree," who is squashed by a falling millstone; the wicked witch in "Hansel and Gretel" who is shoved into the oven:

[*] *Punitive* – intended to punish

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Text reconstruction

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Then copy the paragraph word for word on the lines below. IMPORTANT: Don't copy the passage one word at a time. Try to copy 5 to 10 words at a time from memory.

___2___   Most of the violence is punitive, as Maria Tatar and others have shown.

___6___   all come to a bloody end.

___4___   The Grimm brothers in particular loved to end their tales in violent retribution.

___3___   Its purpose is to educate children in a "pedagogy of fear."

___1___   Fairy tales are violent.

___5___   The wicked stepmother in "Snow White," who must dance to her death in red-hot iron shoes; the wicked stepsisters in "Cinderella," whose eyes are pecked out by doves; the wicked stepmother in "The Juniper Tree," who is squashed by a falling millstone; the wicked witch in "Hansel and Gretel" who is shoved into the oven:

Fairy tales are violent. Most of the violence is punitive, as Maria Tatar and others have shown. Its purpose is to educate children in a "pedagogy of fear." The Grimm brothers in particular loved to end their tales in violent retribution. The wicked stepmother in "Snow White," who must dance to her death in red-hot iron shoes; the wicked stepsisters in "Cinderella," whose eyes are pecked out by doves; the wicked stepmother in "The Juniper Tree," who is squashed by a falling millstone; the wicked witch in "Hansel and Gretel" who is shoved into the oven: all come to a bloody end.

Coordinators, subordinators, and punctuation

Become familiar with the three groups of connecting words that may come between clauses so that you can avoid run-together sentences and fragments.

Coordinators join grammatically equal structures (nouns, verbs, sentences, adjectives, etc.)

GROUP 1: Coordinators (FANBOYS)
These words are found between independent clauses and require only a comma in front of them. *Rex barked, and Sally the cat meowed.*

And	Nor
But	Yet
For	So
Or	

GROUP 2: Coordinators ("fancy FANBOYS" or adverbial conjunctions)
These words are found between independent clauses and require a semi-colon in front of them, or a period and a capital letter. *Rex barked; consequently, Sally the cat meowed.* A complete sentence can begin with a coordinator: *But the Senator's plan did not work out. Moreover, the Senator's plan did not work out.*

Also	Likewise	Similarly
Consequently	Moreover	Therefore
Furthermore	Nevertheless	Then
Hence	On the other hand	Thus
However	Otherwise	

GROUP III: Subordinators
These words usually signal a dependent clause. Use a comma after a dependent clause if it comes at the beginning of a sentence.

"Surbordinating conjunctions"   Relative pronouns

After	In order that	Whereas	That
Although	Since	Wherever	What
Though	So that	Whether	Which
As	Unless	While	Who
As if	Until		Whom
Because	What		Whose
Before	When		Whatever
How	Whenever		Whichever
If	Where		Whoever
Even if			Whomever

Adapted from: http://www.vinu.edu/cms/opencms/academic_resources/writing_center/wccon.html

"Fancy FANBOYS"
Adverbial conjunctions or conjunctive adverbs

HOTSHOT CAT

However = nevertheless
Otherwise = alternatively
Therefore = for that reason
Similarly = in the same way
Hence = therefore
On the other hand = contract
Then = next
Consequently = a result
Also = addition
Thus = because of this or that

Others:
Accordingly, anyway, besides, certainly, consequently, finally, for example, further, furthermore, however, in fact, incidentally, indeed, instead, likewise, meanwhile, moreover, namely, nevertheless, next, nonetheless, now, otherwise, similarly, soon, still, then, thereafter, therefore, undoubtedly

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Others: accordingly, anyway, besides, certainly, consequently, finally, for example, further, furthermore, however, in fact, incidentally, indeed, instead, likewise, meanwhile, moreover, namely, nevertheless, next, nonetheless, now, otherwise, similarly, soon, still, then, thereafter, therefore, undoubtedly

"Fancy FANBOYS" versus "subordinating conjunctions"

You *can* start a complete sentence with a "fancy FANBOYS."
(You can start a complete sentence with a "regular FANBOYS," too, but it's a bit informal. I probably wouldn't do it too often in college writing.)
You *can't* start a complete sentence with a "subordinating conjunction" (or a "relative pronoun" – *who*, *whose, which*, *that*).

Rex looks like a Scottish terrier. **However**, [fancy FANBOYS] he may be a mixed breed.
Rex looks like a Scottish terrier. **But** [FANBOYS] he may be a mixed breed.
Rex looks like a Scottish terrier **although** [SUBORDINATING CONJUNTION] he may be a mixed breed.

Any clause that begins with a subordinating conjunction <u>must be attached to an independent clause</u>. The subordinating conjunctions turn an independent clause into a dependent clause:

INDEPENDENT CLAUSE = COMPLETE SENTENCE	SUBORDINATING CONJUNCTION + INDEPENDENT CLAUSE = DEPENDENT CLAUSE
Rex barks.	*when Rex barks* DEPENDENT CLAUSE
Unfortunately, Rex is barking.	although Rex is barking DEPENDENT CLAUSE
And Rex is barking.	whereas Rex is barking. DEPENDENT CLAUSE

Punctuation

If the dependent clause is at the beginning of the sentence, put a comma after it. If it's at the end of the sentence the comma is optional.

NEVER, NEVER, NEVER USE A SEMICOLON AFTER A DEPENDENT CLAUSE!

Although Rex is barking, Fido is quiet. **RIGHT!**   Although Rex is barking; Fido is quiet. **WRONG!**

Finite and nonfinite verbs

A complete sentence has a FINITE verb.

A **FINITE** verb changes spelling for the present and past tense:
The cow <u>jumps</u> over the moon. (PRESENT TENSE)
The cow <u>jumped</u> over the moon. (PAST TENSE)

A **FINITE** verb also changes spelling for "person":
The cow <u>jumps</u> over the moon. (3rd person SINGULAR)
The cows <u>jump</u> over the moon. (3rd person PLURAL)

A **NONFINITE** verb — a verb in the -ing, ed, or infinitive form — does not change spelling for tense or person.
The cow is <u>jumping</u> over the moon. (“*is jumping*” is the PRESENT PROGRESSIVE; “*is*” is a finite verb; “*jumping*” is a nonfinite verb)
The cows are <u>jumping</u> over the moon. (2 cows)
The cow was <u>jumping</u> over the moon. (PAST PROGRESSIVE)
The cow will be <u>jumping</u> over the moon. (FUTURE PROGRESSIVE)
The cow has <u>jumped</u> over the moon. (PRESENT PERFECT tense)
The cows have <u>jumped</u> over the moon. (2 cows PRESENT PERFECT)
The cow had <u>jumped</u> over the moon. (PAST PERFECT)
The cow will have <u>jumped</u> over the moon. (FUTURE PERFECT)
The cow wants <u>to jump</u> over the moon. (“*to jump*” is the INFINITIVE form)
The cows want <u>to jump</u> over the moon. (2 cows)
The cow wanted <u>to jump</u> over the moon.

EXAMPLES:
The cow <u>jumps</u> [FINITE] over the moon. (COMPLETE SENTENCE)
The cow <u>jumped</u> [FINITE] over the moon. (COMPLETE SENTENCE)
The cow <u>is</u> [FINITE] jumping over the moon. (COMPLETE SENTENCE)
The cow <u>was</u> [FINITE] jumping over the moon. (COMPLETE SENTENCE)
The cow <u>jumping</u> [NONFINITE] over the moon. (INCOMPLETE SENTENCE or SENTENCE FRAGMENT)

The first verb in a verb phrase is **FINITE**. The verbs that follow are **NONFINITE**:
The cow <u>is</u> [FINITE] <u>jumping</u> [NONFINITE] over the moon.
The cow <u>was</u> [FINITE] <u>jumping</u> [NONFINITE] over the moon.
The cow <u>wants</u> [FINITE] <u>to jump</u> [NONFINITE] over the moon.
The cow <u>wanted</u> [FINITE] <u>to jump</u> [NONFINITE] over the moon.

Compounding Methods

Other names for FANBOYS:
Conjunctions
Coordinating conjunctions

"Compounding methods" = ways to combine sentences to create a compound sentence.

A compound sentence has at least two independent clauses.

EXAMPLE:
Rex barked, and Fluffly meowed.
Compounded from:
Rex Barked.
Fluffy meowed.

For And Nor But Or Yet So

FANBOYS

1. INDEPENDENT CLAUSE   (comma + conjunction)   INDEPENDENT CLAUSE.

Also called "*main clause*" or "*complete sentence*."

2. INDEPENDENT CLAUSE   (semicolon)   INDPENDENT CLAUSE.

3. INDEPENDENT CLAUSE   (semicolon + conjunctive adverb + comma) INDEPENDENT CLAUSE.

"fancy FANBOYS" (CJ's nickname for conjunctive adverbs - NOTE 2)

accordingly	furthermore	instead	similarly
afterward	granted	likewise	still
all in all	hence	meanwhile	to be sure
also	hereafter	moreover	then
anyway	heretofore	nevertheless	thereafter
besides	however	next	therefore
clearly then	in addition	notwithstanding	thereupon
finally	in fact	of course	third
first	in general	on the whole	thus
for example	in particular	obviously	unfortunately
for one thing	in summary	otherwise	
fourth	indeed	second	

Other names for "conjunctive adverbs":
Adverbial conjunctions
Transitions
Transitional words

Compounding Methods Sentences

For And Nor But Or Yet So

1. INDEPENDENT CLAUSE   (comma + conjunction)   INDEPENDENT CLAUSE.

Einstein was an indifferent math student   , but   he was a genius.
Finches eat seeds   , and   hummingbirds drink nectar from flowers.

2. INDEPENDENT CLAUSE   (semicolon)   INDPENDENT CLAUSE.

Some people like running on the beach   ;   others prefer swimming in the ocean.
Great minds have great purposes   ;   others have wishes. –Washington Irving

3. INDEPENDENT CLAUSE   (semicolon + conjunctive adverb + comma) INDEPENDENT CLAUSE.

The printers take time to warm up   ;   meanwhile   ,   the students can enjoy the view.
He came from a large family   ;   in fact   ,   he had ten siblings.

Subordinators and Relative Pronouns
Both Begin Dependent Clauses

Common Subordinators

*after	since
although	so that
as	than
as if	‡that
as soon as	though
as though	unless
because	*until
*before	†when
even if	whenever
even though	†where
†how	whereas
if	wherever
in order that	whether
§once	*while
†why	

Relative Pronouns

‡that	
†what	whatever
†which	whichever
†who	whoever
†whom	whomever
†whose	

* Also can be used as a preposition
† Also can be interrogative pronoun in questions
‡ Also can be a demonstrative pronoun
§ Also can be used as an adverb or adjective

es, but may not be published for profit.

Punctuating Dependent Clauses

1. Dependent Clause (comma) Independent Clause.

   When the cat is away   ,   the mice will play.
   Because we studied hard   ,   we passed the exam.

2. Independent Clause ( ) Essential (Restrictive) Dependent Clause.

   The tokay is a gecko   that eats rodents and small birds.
   We passed the exam   because we studied hard.

3. Independent Clause (comma) Non-Essential (Non-Restrictive) Dependent Clause.

   She remembered her childhood   ,   when life was simple.
   Many people suffer from mental illnesses ,   which are more common than one would think.

4. Independent ( ) [Essential (Restrictive) Dependent Clause] ( ) Clause.

   Workers   who have flu symptoms   should stay home.
   A paragraph   which has specific details   is more effective than one that does not.

5. Independent (comma) [Non-Essential (Non- Restrictive) Dependent Clause] (comma) Clause.

   The golden poison dart frog   ,   which lives in Colombia   ,   is toxic enough to kill ten people.
   Charlotte and Emily Brontë   ,   who had few toys as children   ,   spent their time writing imaginative stories.

1

FANBOYS are COORDINATORS.
Coordinators join "grammatical equals":
adjective & adjective, adverb & adverb, phrase & phrase, subject & subject, predicate & predicate, sentence & sentence, etc.

Other names for FANBOYS:
Conjunctions
Coordinating conjunctions

2

"CONJUNCTIVE ADVERBS" are also called "ADVERBIAL CONJUNCTIVES."

I call them "fancy FANBOYS" because inside a compound sentence they serve the same purpose as the "simple" FANBOYS (they join 2 independent clauses), but the "fancy FANBOYS" tend to be used in more formal prose and are preceded by a semicolon.

NOTE: You will never see the term "fancy FANBOYS" in a textbook!
"Fancy FANBOYS" is a memory aid.

3

"MAIN CLAUSE," "INDEPENDENT CLAUSE," and "COMPLETE SENTENCE" all refer to the same grammatical structure, which has:
- A subject
- A finite verb (changes spelling for past & pres
- NO subordinator ("dependent marker word") at the beginning

Main clause:
Rex [SUBJECT] barked. [FINITE VERB]
Subordinate clause:
Although [SUBORDINATOR] Rex [SUBJECT] barked. [FINITE VERB]

4

To punctuate sentences, you need to know the difference between COMPOUND sentences and COMPLEX sentences.
Compound sentences consist of two or more **independent clauses.**
Complex sentences consist of at least one **independent clause** and at least one **dependent clause**.
An independent clause can stand alone as a complete sentence.
A dependent clause cannot stand alone as a complete sentence.
Dependent clauses come in many shapes and forms. The simplest form looks like this:
Although Rex barked.
"**Although**" is a SUBORDINATOR.
When you place a SUBORDINATOR in front of an independent clause, the independent clause becomes a dependent clause.

Sentence combining: Compound sentences using semicolon, "fancy FANBOYS," and comma

Content words

Open word class:

- New content words are invented all the time (e.g.: *Google, laptop*).
- The meaning of a content word can be looked up in the dictionary.
- ~1,000,000 content words in English

Noun	Dobbs Ferry, chair, happiness, democracy, evil...
Adjective	Happy, blue, tall, few, many...
Verb	Run, walk, sit, bemoan, forgive...
Adverb	Slowly, steadily, acrimoniously, barbarously...

Function words

Closed word class:

- New function words are rarely invented.
- The meaning of a function word resides primarily in the text (or conversation) in which it appears.
- ~500 function words in English

Determinative	The, a, an...
Pronoun	He, she, it, when, which, that, whose, his, hers...
Preposition	By, on, beneath, on, out, with, upon, without, at, before, behind, against...
Auxiliary verb	Do, is, am, have, got... (she **is** going; he **has** finished)
Subordinator	When, although, where, because,...
Coordinator	FANBOYS: For, and, nor, but, or, yet, so; "fancy FANBOYS": however, therefore, thus, etc.

Function words and content words continued...

Key Numbers
Out of 100,000 words in the average English speaker's vocabulary, function words account for only about 500, or **0.5%.**
55% of what we speak, hear, and read in typical speech, however, is made up of these function words.

The finding: A person's use of function words—the pronouns, articles, prepositions, conjunctions, and auxiliary verbs that are the connective tissue of language—offers deep insights into his or her honesty, stability, and sense of self.

Source: Your Use of Pronouns Reveals Your Personality
by James W. Pennebaker | Harvard Business Review | December 2011
http://hbr.org/2011/12/your-use-of-pronouns-reveals-your-personality/ar/2

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The research: In the 1990s, James Pennebaker helped develop a computer program that counted and categorized words in texts, differentiating content words, which convey meaning, from function words. After analyzing 400,000 texts—including essays by college students, instant messages between lovers, chat room discussions, and press conference transcripts—he concluded that function words are important keys to someone's psychological state and reveal much more than content words do.

The challenge: Can insignificant words really provide a "window to the soul"? **Professor Pennebaker, defend your research.**

Pennebaker: When we began analyzing people's writing and speech, we didn't expect results like this. For instance, when we analyzed poems by writers who committed suicide versus poems by those who didn't, we thought we'd find more dark and negative content words in the suicides' poetry. We didn't—but we did discover significant differences in the frequency of words like "I." In study after study, we kept finding the same thing. When we analyzed military transcripts, we could tell people's relative ranks based on their speech patterns—and again, it was the pronouns, articles, conjunctions, and other function words that made a difference, not the content words.

HBR: Why are function words so important?
In English there are about 500 function words, and about 150 are really common. Content words—nouns, verbs, adjectives, and most adverbs—convey the guts of communication. They're how we express ideas. Function words help shape and shortcut language. People require social skills to use and understand function words, and they're processed in the brain differently. They are the key to understanding relationships between speakers, objects, and other people. When we analyze people's use of function words, we can get a sense of their emotional state and personality, and their age and social class.

Here's a simple, pronoun-heavy sentence: I don't think I buy it.
Ooh. You just revealed something about yourself in that statement. Why did you say "I don't think I buy it" instead of "I don't buy it" or even "That's ridiculous"? Pronouns tell us where people focus their attention. If someone uses the pronoun "I," it's a sign of self-focus. Say someone asks "What's the weather outside?" You could answer "It's hot" or "I think it's hot." The "I think" may seem insignificant, but it's quite meaningful. It shows you're more focused on yourself. Depressed people use the word "I" much more often than emotionally stable people. People who are lower in status use "I" much more frequently.

Can you tell if someone's lying by their use of function words?
Yes. A person who's lying tends to use "we" more or use sentences without a first-person

pronoun at all. Instead of saying "I didn't take your book," a liar might say "That's not the kind of thing that anyone with integrity would do." People who are honest use exclusive words like "but" and "without" and negations such as "no," "none," and "never" much more frequently. We've analyzed transcripts of court testimony, and the differences in speech patterns are really clear.

Function words sound like two-by-fours: They're important but not meaningful in creating the overall architecture.
You might even think of function words as the nails. It seems natural to pay them little regard. If you type a sentence into Google, its algorithms disregard function words, because it's interested in content. But these words convey important subtleties—"a ring" versus "that ring." In foreign languages, function words often convey people's status relative to one another.

If you listened to a job interview, what would the use of function words tell you?
It's almost impossible to hear the differences naturally, which is why we use transcripts and computer analysis. Take a person who's depressed. "I" might make up 6.5% of his words, versus 4% for a nondepressed person. That's a huge difference statistically, but our ears can't pick it up. But hypothetically, if I were to listen to an interview, I might consider how the candidate talks about their coworkers at their last job. Do they refer to them as "we" or "they"? That gives you a sense of their relationship to the group. And if you want someone who's really decisive in a position, a person who says "It's hot" rather than "I think it's hot" may be a better fit.

How do people react to your analyses of their speech?
I did it using my own speech and was really surprised. I used the software on everything I wrote—even e-mails. I also developed a recorder that people could wear. It would turn on for 30 seconds every 12 minutes to capture bits of everyday speech. I wore it myself. When I analyzed my speech, it struck me how differently I spoke to my son, who was then 12 years old. With my daughter and my wife, my language was much more informal and personal. With my son it was more cool and detached. I realized I was drawing back from him—I wasn't being psychologically present. This was during a period of some tension in our relationship. He was a typical adolescent and was acting out a bit, and I was responding by being cool and detached, which males stupidly do when we're annoyed. When I realized this, I tried to become more human, emotional, and honest with him.

Are there gender differences in how we use function words?
Most people think men use "I" more, because men are more narcissistic and self-congratulatory. But across studies and cultures, we found that women use "I," "me," and "mine" more. Women are more self-attentive and aware of their internal state. Men use more articles: "a," "an," and "the." That means men talk about objects and things more. You use articles when you're referring to concrete objects, because articles precede concrete nouns. Women also use more third-person pronouns—"he," "she," and "they"—because women talk more about people and relationships, and they're better at managing them. And in many ways, relationships are more complex.

James W. Pennebaker is the chair of psychology at the University of Texas at Austin and the author of *The Secret Life of Pronouns: What Our Words Say About Us* (Bloomsbury Press, 2011).

http://hbr.org/2011/12/your-use-of-pronouns-reveals-your-personality/ar/2

The Secret Language Code
Psychologist James Pennebaker reveals the hidden meaning of pronouns
By Gareth Cook | *Scientific American* | August 16, 2011

Are there hidden messages in your emails? Yes, and in everything you write or say, according to James Pennebaker, chair of the department of psychology at the University of Texas at Austin. Pennebaker has been a leader in the computer analysis of texts for their psychological content. And in his new book, "The Secret Life of Pronouns," he argues that how we use words like "I," "she," and "who" reveal secrets of our psychology. He spoke recently with Mind Matters editor Gareth Cook.

COOK: How did you become interested in pronouns?

PENNEBAKER: A complete and total accident. Until recently, I never thought about parts of speech. However, about ten years ago I stumbled on some findings that caught my attention. In the 1980s, my students and I discovered that if people were asked to write about emotional upheavals, their physical health improved. Apparently, putting emotional experiences into language changed the ways people thought about their upheavals. In an attempt to better understand the power of writing, we developed a computerized text analysis program to determine how language use might predict later health improvements. In other words, I wanted to find if there was a healthy way to write.

Much to my surprise, I soon discovered that the ways people used pronouns in their essays predicted whose health would improve the most. Specifically, those people who benefited the most from writing changed in their pronoun use from one essay to another. Pronouns were reflecting people's abilities to change perspective.

As I pondered these findings, I started looking at how people used pronouns in other texts -- blogs, emails, speeches, class writing assignments, and natural conversation. Remarkably, how people used pronouns was correlated with almost everything I studied. For example, use of first-person singular pronouns (I, me, my) was consistently related to gender, age, social class, honesty, status, personality, and much more. Although the findings were often robust, people in daily life were unable to pick them up when reading or listening to others. It was almost as if there was a secret world of pronouns that existed outside our awareness.

COOK: What would make you think that the use of pronouns would be meaningful?

PENNEBAKER: Never in a million years would I have thought that pronouns would be a worthwhile research topic. I ran study after study and initially found large and unexpected differences between people in their pronoun use. In hindsight, I think I ignored the findings because they didn't make sense. One day, I lined up about 5 experiments that I had conducted and every one revealed the same effects. It was that day that I finally admitted to myself that pronouns must be meaningful.

COOK: What differences have you found between men and women?

PENNEBAKER: Almost everything you think you know is probably wrong. Take this little test. Who uses the following words more, women or men?
 > 1st person singular (I, me, my)
> 1st person plural (we, us our)
> articles (a, an, the)
> emotion words (e.g., happy, sad, love, hate)

> cognitive words (e.g., because, reason, think, believe)
> social words (e.g., he, she, friend, cousin)

Most people assume that men use I-words and cognitive words more than women and that women use we-words, emotions, and social words more than men. Bad news. You were right if you guessed that women use social words more. However, women use I-words and cognitive words at far higher rates than men. There are no reliable differences between men and women for use of we-words or emotion words (OK, those were trick questions). And men use articles more than women, when you might guess there'd be no difference.

These differences hold up across written and spoken language and most other languages that we have studied. You can't help but marvel at the fact that we are all bombarded by words from women and men every day of our lives and most of us have never "heard" these sex differences in language. Part of the problem is that our brains aren't wired to listen to pronouns, articles, prepositions, and other "junk" words. When we listen to another person, we typically focus on what they are saying rather than how they are saying it.

Men and women use language differently because they negotiate their worlds differently. Across dozens and dozens of studies, women tend to talk more about other human beings. Men, on the other hand, are more interested in concrete objects and things. To talk about human relationships requires social and cognitive words. To talk about concrete objects, you need concrete nouns which typically demand the use of articles.

No matter what your sex, if you have to explain that Sally is leaving her husband because of her new lover, you have to make references to all the actors and you have to do some fairly complex cognitive analyses. If you have to explain why your carburetor in your car is broken, your causal analysis will likely be relatively pallid and will involve referring to concrete nouns.

COOK: You write about using this to analyze historical documents. Do you think this tool might be of any use to historians or biographers?

PENNEBAKER: Historians and biographers should jump on this new technology. The recent release of the Google Books Project should be required reading for everyone in the humanities. For the first time in the history of the world, there are methods by which to analyze tremendously large and complex written works by authors from all over the world going back centuries. We can begin to see how thinking, emotional expression, and social relations evolve as a function of world-wide events. The possibilities are breathtaking.

In my own work, we have analyzed the collected works of poets, playwrights, and novelists going back to the 1500s to see how their writing changed as they got older. We've compared the pronoun use of suicidal versus non-suicidal poets. Basically, poets who eventually commit suicide use I-words more than non-suicidal poets. The analysis of language style can also serve as a psychological window into authors and their relationships. We have analyzed the poetry of Elizabeth Barrett and Robert Browning and compared it with the history of their marriage. Same thing with Ted Hughes and Sylvia Plath. Using a method we call Language Style Matching, we can isolate changes in the couples' relationships.

COOK: What are some of the more unusual "texts" you have applied this technique to?

PENNEBAKER: Some of the more unusual texts have been my own. There is something almost creepy about analyzing your own emails, letters of recommendation, web pages, and natural conversations.

COOK: And what have you found?

PENNEBAKER: One of the most interesting results was part of a study my students and I conducted dealing with status in email correspondence. Basically, we discovered that in any interaction, the person with the higher status uses I-words less (yes, less) than people who are low in status. The effects were quite robust and, naturally, I wanted to test this on myself. I always assumed that I was a warm, egalitarian kind of guy who treated people pretty much the same.

I was the same as everyone else. When undergraduates wrote me, their emails were littered with I, me, and my. My response, although quite friendly, was remarkably detached -- hardly an I-word graced the page. And then I analyzed my emails to the dean of my college. My emails looked like an I-word salad; his emails back to me were practically I-word free.

COOK: Does your work have any application in lie detection?

PENNEBAKER: It does. Several labs, including ours, have now conducted studies to evaluate the prospect of building a linguistic lie detector. The preliminary findings are promising. In controlled studies, we can catch lying about 67% of the time where 50% is chance. Humans, reading the same transcripts, only catch lying 53% of the time. This is actually quite impressive unless you are a person in the judicial system. If you are waiting for a language-based system to catch real world lying at rates of 90 or 95 percent of the time, it won't happen in your lifetime. It's simply too complicated.

COOK: What are you looking into now? Where do you see the field going in the future?

PENNEBAKER: One of the most fascinating effects I've seen in quite awhile is that we can predict people's college performance reasonably well by simply analyzing their college admissions essays. Across four years, we analyzed the admissions essays of 25,000 students and then tracked their grade point averages (GPAs). Higher GPAs were associated with admission essays that used high rates of nouns and low rates of verbs and pronouns. The effects were surprisingly strong and lasted across all years of college, no matter what the students' major. To me, the use of nouns -- especially concrete nouns -- reflects people's attempts to categorize and name objects, events, and ideas in their worlds. The use of verbs and pronouns typically occur when people tell stories. Universities clearly reward categorizers rather than story tellers. If true, can we train young students to categorize more? Alternatively, are we relying too much on categorization strategies in American education?

I think one advantage I have had in my career is that I've got a short attention span. If something new and exciting bubbles up in our data, I will likely drop what I'm doing and try to understand it. It's a wonderful time to be alive.

Are you a scientist who specializes in neuroscience, cognitive science, or psychology? And have you read a recent peer-reviewed paper that you would like to write about? Please send suggestions to Mind Matters editor Gareth Cook, a Pulitzer prize-winning journalist at the Boston Globe. He can be reached at garethideas AT gmail.com or Twitter @garethideas.

http://www.scientificamerican.com/article.cfm?id=the-secret-language-code

DATE _____

NAME _____

1. After the good stepdaughter falls down the well, she finds herself:

    ☐ in a beautiful meadow

    ☐ beside Mother Hulda's house

    ☐ beneath a talking apple tree

    ☐ covered by a heavy shower of gold

2. A *spindle* is:

    ☐ a tool for stirring ashes in the hearth

    ☐ a slender rod on which thread is twisted

    ☐ a tool for beating dust out of rugs

    ☐ a flat wooden spatula used to remove bread from the oven

3. At first, the good daughter is afraid of Mother Hulda because Mother Hulda:

    ☐ is a witch

    ☐ has a talking apple tree

    ☐ is an old crone

    ☐ has enormous teeth

4. In the story, the meaning of the word *pitch* is:

    ☐ the act of tossing a ball or object

    ☐ to attempt to persuade

    ☐ a dark, tarry substance

    ☐ the highness or lowness of a sound, determined by the frequency of the waves producing it

5. In the world where the stepmother lives, Mother Hulda is in charge of:

    ☐ snow

    ☐ sunshine

    ☐ ripe apples

    ☐ spinning

ANSWER

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NAME _____

1. When Cinderella's father goes to the fair, Cinderella asks him to bring her back

   ☐ fine clothes

   ☐ pearls and jewels

   ☐ wooden shoes

   ☐ a twig

2. Who gives Cinderella a dress of silver and gold to wear to the festival?

   ☐ a bird

   ☐ her fairy godmother

   ☐ her wicked stepmother

   ☐ the 7 dwarfs

3. To fit the shoe, the older stepsister:

   ☐ cuts off part of her heel

   ☐ cuts off her big toe

   ☐ squeezes her big foot into the small shoe

   ☐ asks for help from a bird in a tree

4. *Flourish* means:

   ☐ grow healthily; do well

   ☐ relish

   ☐ pursue with alacrity

   ☐ embrace; care for

5. *Curry* means:

   ☐ to scamper quickly

   ☐ to gain approval or favor by using flattery

   ☐ to exhibit obedience to authority

   ☐ to intuit

ANSWERS

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G.K. Chesterton
1874-1936

- Writer of the *Father Brown* mysteries
- Christian apologist
- Called himself an "orthodox Christian"
- Eventually converted to Catholicism from High Church Anglicanism
- American Chesterton Society
- Considered himself neither liberal nor conservative:
- "The business of Progressives is to go on making mistakes. The business of the Conservatives is to prevent the mistakes from being corrected."

Born in London, Chesterton was educated at St. Paul's, but never went to college. He went to art school. In 1900, he was asked to contribute a few magazine articles on art criticism, and went on to become one of the most prolific writers of all time. He wrote a hundred books, contributions to 200 more, hundreds of poems, including the epic Ballad of the White Horse, five plays, five novels, and some two hundred short stories, including a popular series featuring the priest-detective, Father Brown. In spite of his literary accomplishments, he considered himself primarily a journalist. He wrote over 4000 newspaper essays, including 30 years worth of weekly columns for the *Illustrated London News*, and 13 years of weekly columns for the *Daily News*. He also edited his own newspaper, *G.K.'s Weekly*. (To put it into perspective, four thousand essays is the equivalent of writing an essay a day, every day, for 11 years. If you're not impressed, try it some time. But they have to be good essays – all of them – as funny as they are serious, and as readable and rewarding a century after you've written them.)

[snip]

This man who composed such profound and perfect lines as "The Christian ideal has not been tried and found wanting; it has been found difficult and left untried," stood 6'4″ and weighed about 300 pounds, usually had a cigar in his mouth, and walked around wearing a cape and a crumpled hat, tiny glasses pinched to the end of his nose, swordstick in hand, laughter blowing through his moustache. And usually had no idea where or when his next appointment was. He did much of his writing in train stations, since he usually missed the train he was supposed to catch. In one famous anecdote, he wired his wife, saying, "Am at Market Harborough. Where ought I to be?" His faithful wife, Frances, attended to all the details of his life, since he continually proved he had no way of doing it himself. She was later assisted by a secretary, Dorothy Collins, who became the couple's surrogate daughter, and went on to become the writer's literary executrix, continuing to make his work available after his death.

From: Who is this Guy and Why Haven't I Heard of Him? An Introduction to G.K. Chesterton by Dale Ahlquist President, the American Chesterton Society
http://www.chesterton.org/discover-chesterton/who-was-this-guy/

The following essay is drawn from G. K. Chesterton's book, *All Things Considered*. Originally published in 1908, this text comes from the 1915 edition.

SUBJECT: Are fairy tales immoral?

NOTES

SOME solemn and superficial people (for nearly all very superficial people are solemn) have declared that the fairy-tales are immoral; they base this upon some accidental circumstances or regrettable incidents in the war between giants and boys, some cases in which the latter indulged in unsympathetic deceptions or even in practical jokes. The objection, however, is not only false, but very much the reverse of the facts. The fairy-tales are at root not only moral in the sense of being innocent, but moral in the sense of being didactic, moral in the sense of being moralising. It is all very well to talk of the freedom of fairyland, but there was precious little freedom in fairyland by the best official accounts. Mr. W. B. Yeats and other sensitive modern souls, feeling that modern life is about as black a slavery as ever oppressed mankind (they are right enough there), have especially described elfland as a place of utter ease and abandonment - a place where the soul can turn every way at will like the wind. Science denounces the idea of a capricious God; but Mr. Yeats's school suggests that in that world every one is a capricious god. Mr. Yeats himself has said a hundred times in that sad and splendid literary style which makes him the first of all poets now writing in English (I will not say of all English poets, for Irishmen are familiar with the practice of physical assault), he has, I say, called up a hundred times the picture of the terrible freedom of the fairies, who typify the ultimate anarchy of art

"Where nobody grows old or weary or wise, Where nobody grows old or godly or grave."

But, after all (it is a shocking thing to say), I doubt whether Mr. Yeats really knows the real philosophy of the fairies. He is not simple enough; he is not stupid enough. Though I say it who should not, in good sound human stupidity I would knock Mr. Yeats out any day. The fairies like me better than Mr. Yeats; they can take me in more. And I have my doubts whether this feeling of the free, wild spirits on the crest of hill or wave is really the central and simple spirit of folk-lore. I think the poets have made a mistake: because the world of the fairy-tales is a brighter and more varied world than ours, they have fancied it less moral; really it is brighter and more varied because it is more moral. Suppose a man could be born in a modern prison. It is impossible, of course, because nothing human can happen in a modern prison, though it could sometimes in an ancient dungeon. A modern prison is always inhuman, even when it is not inhumane. But suppose a man were born in a modern prison, and grew accustomed to the deadly silence and the disgusting indifference; and suppose he were then suddenly turned loose upon the life and laughter of Fleet Street. He would, of course, think that the literary men in Fleet Street were a free and happy race; yet how sadly, how ironically, is this the reverse of the case! And so again these toiling serfs in Fleet Street, when they catch a glimpse of the fairies, think the fairies are utterly free. But fairies are like journalists in this and many other respects. Fairies and journalists have an apparent gaiety and a delusive beauty. Fairies and journalists seem to be lovely and lawless; they seem to be both of them too exquisite to descend to the ugliness of everyday duty.

But it is an illusion created by the sudden sweetness of their presence. Journalists live under law; and so in fact does fairyland.

If you really read the fairy-tales, you will observe that one idea runs from one end of them to the other - the idea that peace and happiness can only exist on some condition. *[boldface added]* This idea, which is the core of ethics, is the core of the nursery-tales. The whole happiness of fairyland hangs upon a thread, upon one thread. Cinderella may have a dress woven on supernatural looms and blazing with unearthly brilliance; but she must be back when the clock strikes twelve. The king may invite fairies to the christening, but he must invite all the fairies or frightful results will follow. Bluebeard's wife may open all doors but one. A promise is broken to a cat, and the whole world goes wrong. A promise is broken to a yellow dwarf, and the whole world goes wrong. A girl may be the bride of the God of Love himself if she never tries to see him; she sees him, and he vanishes away. A girl is given a box on condition she does not open it; she opens it, and all the evils of this world rush out at her. A man and woman are put in a garden on condition that they do not eat one fruit: they eat it, and lose their joy in all the fruits of the earth.

This great idea, then, is the backbone of all folk-lore - the idea that all happiness hangs on one thin veto; all positive joy depends on one negative. Now, it is obvious that there are many philosophical and religious ideas akin to or symbolised by this; but it is not with them I wish to deal here. It is surely obvious that all ethics ought to be taught

to this fairy-tale tune; that, if one does the thing forbidden, one imperils all the things provided. A man who breaks his promise to his wife ought to be reminded that, even if she is a cat, the case of the fairy-cat shows that such conduct may be incautious. A burglar just about to open some one else's safe should be playfully reminded that he is in the perilous posture of the beautiful Pandora: he is about to lift the forbidden lid and loosen evils unknown. The boy eating some one's apples in some one's apple tree should be a reminder that he has come to a mystical moment of his life, when one apple may rob him of all others. This is the profound morality of fairy-tales; which, so far from being lawless, go to the root of all law. Instead of finding (like common books of ethics) a rationalistic basis for each Commandment, they find the great mystical basis for all Commandments. We are in this fairyland on sufferance; it is not for us to quarrel with the conditions under which we enjoy this wild vision of the world. The vetoes are indeed extraordinary, but then so are the concessions. The idea of property, the idea of some one else's apples, is a rum idea; but then the idea of there being any apples is a rum idea. It is strange and weird that I cannot with safety drink ten bottles of champagne; but then the champagne itself is strange and weird, if you come to that. If I have drunk of the fairies' drink it is but just I should drink by the fairies' rules. We may not see the direct logical connection between three beautiful silver spoons and a large ugly policeman; but then who in fairy tales ever could see the direct logical connection between three bears and a giant, or between a rose and a roaring beast? Not only can

these fairy-tales be enjoyed because they are moral, but morality can be enjoyed because it puts us in fairyland, in a world at once of wonder and of war.

Chesterton, G. K. *All Things Considered*. London: Methuen, 1908, 1915.

http://www.surlalunefairytales.com/introduction/gkchesterton.html

abandonment: to give oneself over unrestrainedly

anarchy: "a situation of confusion and wild behavior in which the people in a country, group, organization, etc., are not controlled by rules or laws"

capricious: changing often or quickly; changing mood rapidly; not logical or reasonable, based on an idea or desire that is impossible to predict

concession: several meanings: acknowledging defeat; acknowledging that a point made in an argument is right; something done grudgingly in order to reach an agreement or improve a situation; a grant of land by the government; a right to undertake a particular activity in order to earn a profit ("concession stand")

didactic: designed or intended to teach people something

Fleet Street: street in London that was home to British newspapers

mystical: having a spiritual meaning that is difficult to perceive or understand

prolific: producing a large amount of something (a *prolific* writer produces a large amount of writing)

rum idea: odd idea (British)

spiritual: of or relating to the spirit

sufferance: Absence of objection rather than genuine approval; toleration

orthodox: Accepting as true what most people believe is true

Pandora: Opened a large jar that contained all the evils in the world; opening Pandora's box means opening up all kinds of new problems you don't already have

W.B. Yeats: 1865-1939 Irish poet; major figure in 20th century literature