

# STORY: THE LANGUAGE OF THE MIND

The Science Behind the Amazing Power of Story

—-or—-

(Goldilocks & the Lone Ranger to the Rescue)

A Summary of Recent Research

by

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There are two halves to the word  
"Storytelling:"

*Story*

—and—

*Telling*

# The **Science** of Story

(In 3 parts)

1. The Science of Story Structure
2. Anticipating the Mind of the Audience
3. The Story Process

1. The **Science**  
of  
Story Structure

# PEOPLE LEARNED:

- To **read**...

...**200** YAG (years ago)

# PEOPLE LEARNED:

- To read 200 YAG
  - **Logic & argumentative forms...**
- ...3,200 YAG**

# PEOPLE LEARNED:

- To read 200 YAG
- Logic & argumentative forms 3,200 YAG

• To **write**...

...**7,000** YAG

# PEOPLE LEARNED:

- To read 200 YAG
- Logic & argumentative 3,200 YAG
- To write 7,000 YAG

- To use **storytelling**...

...>**100,000 YAG!**

100,000 years of storytelling dominance  
in human interaction

to **communicate** and to **archive**  
learning, wisdom, fact, knowledge,  
values, beliefs, history, etc.

has **evolutionarily rewired** the human  
brain to think in specific story terms.

The human brain is predisposed to think in **story terms**.

- To Understand
- To Make Sense
- To Remember

*Person #1: "Where's John?"*

*Person #2: "Well...I didn't want to say anything. But...I saw a green VW parked in front of Carol's."*

- Did anyone say that there is **no connection**?
- Did anyone say that it makes **no sense**?

**NO!**

Human minds automatically **assume** a connection  
and **assume** it makes sense

and use ***STORY Structures***  
to fill in missing information.

## Our Storied Minds in Action:

- **Person 1:** *"Hi John."*
- **Person 2:** *"Shhhh! I'm not here! You never saw me. I'm not here!"*
- **Person 1:** *"It's okay. Carol's gone home."*

# Your **Story Mind** in *Action*

He went to the store.

Fred died.

Sharon went hungry and wept.

# Your Story Mind in Action

1. You assume connection and storytelling structure.
2. Incomplete is good enough.
3. You assume its about characters (he, Fred & Sharon).
4. You assume character relationships.
5. You assume cause and effect sequencing.
6. You assume goal and motive.
7. You assume struggle (and obstacles)
8. You assume emotional reactions and states.

# STORY:

The root form of *all* narratives.

The quintessential, intrinsic  
base of all  
**human communication.**

## The Central Thesis:

Research clearly shows that **STORY**  
architecture:

- Provides superior **retention** (memory and recall)
  - Provides improved **understanding**
  - Creates **context** and **relevance**
    - Creates **empathy**
- Makes readers/listeners **pay attention**
  - Enhances the creation of **meaning**

What *is* a **story**?

What makes a story *stick*...

...while you tell?

...long after you've finished?

# What's the **difference** between a *story* and...

- A magazine article?
- An essay?
- An encyclopedia entry?
- A memo?
- A recipe?
- A poem?
- A directive?
- A conversation?
- A newspaper column?
- A joke?

**"STORY"**

doesn't refer to the content.

**"STORY"**

refers to the **structure**, the framework, to  
*how the content is organized.*

**STORY**

is the most effective *delivery vehicle*  
for your content.

**"STORY"**

guides the **interpretation** of;

**"STORY"**

guides the creation of **meaning** from;

**"STORY"**

controls the **memory** of

**your information, concepts & facts**

Your goal is **NOT** to present current best information.

Your goal is to have listeners  
**understand, remember,**  
and **apply** your information  
to affect their **beliefs, attitudes,** and  
**behavior.**

*That requires **STICKY STORIES.***

So, what *is* a **story**?



What the **Dictionary** says:

**Story:** "*A narrative account of a real or imagined event or events.*"

**HE WENT TO THE  
STORE.**

The dictionary is *wrong!*

And we are left without an **understanding** of what a **story** is or how to use this mighty architecture.

HE WENT TO THE STORE.

# Eight Essential Elements

1.

2.

3. **Goal**

4.

5.

6.

7.

8.

# Goal:

"What the main character **needs** or **wants** to do or get in this story."

**NOT** what they **DO**;

**NOT** what they **ACCOMPLISH**;

But what they are **AFTER!**

## *The Power of a **GOAL**:*

*Sally let loose a team of gophers. The plan backfired when a dog chased them away. She then threw a party but the guests failed to bring their motorcycles.*

*Furthermore, her stereo system was not loud enough.*

*Sally spent the next day looking for a "Peeping Tom" but was unable to find one in the Yellow Pages. Obscene phone calls gave her some hope until the number was changed. It was the installation of a blinking neon light across the street that finally did the trick. Sally framed the ad from the classified section and now has it hanging on her wall.*

Let's add a **goal**:

**Sally** hates the woman who moved in next door and **wants to drive her out.**

Now does it make sense?

*Sally let loose a team of gophers. The plan backfired when a dog chased them away. She then threw a party but the guests failed to bring their motorcycles. Furthermore, her stereo system was not loud enough. Sally spent the next day looking for a "Peeping Tom" but was unable to find one in the Yellow Pages. Obscene phone calls gave her some hope until the number was changed. It was the installation of a blinking neon light across the street that finally did the trick. Sally framed the ad from the classified section and now has it hanging on her wall.*

# Eight Essential Elements

1.

2.

3. **Goal**

4.

5.

6.

7.

8.

He went to the store **for some milk.**  
He got some.

The End

# Eight Essential Elements

1.

2.

3. Goal

4.

5. **Conflicts & Problems**

6.

7.

8.

Anything that blocks a character (even temporarily) from reaching a goal is a ***PROBLEM.***

If the problem places a character in opposition to some other entity in the story it is a ***CONFLICT.***

He went to the store for some milk. A  
whimpering three-year-old toddler sat in  
his way and sobbed, "You can't come in!"  
He stepped over him and got his milk.

The End

# Eight Essential Elements

- 1.
- 2.
3. Goal
- 4.
5. Conflicts & Problems
6. **Risk & Danger**
- 7.
- 8.

The magic ingredients:

## *RISK & DANGER*

They create excitement, tension, drama

**Risk** is the probability of failure.

**Danger** is the consequences of failure.

# Problems & Conflicts and Risk & Danger

- Are **always** there
  - Drive **all** stories
  - Do *not* mean stories about **failure**
- 
- They are challenges along the road to **success**.

Does "Danger"  
automatically mean  
"Physical Danger?"

Absolutely **NOT!**

**Any** emotional, mental, social, professional, or physical danger will do.

(embarrassment, rejection, lack of knowledge & understanding, lack of information, failure, ridicule, belittlement, being laughed at, being abandoned, being scorned, being unwanted, fears, etc., etc.)

These are the best dangers!

He went to the store for some milk.  
**Three gun-totin', bullyin' *Bad Guys***  
**blocked the front door threatening**  
**his life.** So he went in the back door  
and got his milk.

□ The End

# Eight Essential Elements

1.

2.

3. Goal

4.

5. Conflicts & Problems

6. Risk & Danger

7. **Struggles**

8.

To **struggle**:

"to contend, to engage,  
to exert a great effort,  
to fight,  
to stand against, to oppose"

## *Sticky Stories*

require characters to *struggle*.

Readers/listeners won't appreciate **success**  
without first *SEEING* **struggle**.

The greater the struggle, the more we care!

# Struggle *HOW?*

## Internally:

- Over a decision
- Between competing values or goals
- Self versus others (sacrifice)
- Over uncertainty, lack of information
- Over facing (or not facing) tasks, decisions, fears, etc.

## Externally:

- Verbally with boss/contemporaries/parents subordinates/others
- Physically with enemies
- Over scarce resources
- To do something

He went to the store for some milk. Three gun-totin', bully, *Bad Guys* blocked the front door threatening his life. He **risked his life** and **fought** through the *Bad Guys* and got his milk.

The End

# Eight Essential Elements

- 1.
- 2.
3. Goal
- 4.
5. Conflicts & Problems
6. Risk & Danger
7. Struggles
8. **Details**

# Details:

- Create *all images* and *PICTURES*
- Create *reality*
- Allow listeners/readers to "*see*" a story
- Serve as *spot lights* for a story

# Eight Essential Elements

- 1.
- 2.
3. Goal
4. **Motive**
5. Conflicts & Problems
6. Risk & Danger
7. Struggles
8. Details

# Motives

- Explain *why* a goal is **important**
- Create **suspense**
- Give characters a **reason** to face conflicts, risks, and dangers
- Typically relate to the **human condition** and are **personal**

**\*\*\*** Motives also control how audiences *relate* to your character. **\*\*\***

# The Power of **Motives**

**Sharky**, the shark, *wanted a puppy* because:

- He was tired of doing chores.
- He was tired of eating tuna.
- He was lonely and needed a friend.
- He wanted to show that land and sea animals could live in peace.

He went to the store for some milk **that would keep his deathly ill son alive until the doctor arrived.** Three gun-totin', bullyin' Bad Guys blocked the front door threatening his life. He risked his life and fought through the bad guys and got his milk.

The End

# Eight Essential Elements

1. **Character**
2. **Character Traits** (that make characters interesting)
3. Goal
4. Motive
5. Conflicts & Problems
6. Risk & Danger
7. Struggles
8. Details

What kind of information makes a character

## *Interesting?*

Creating **interesting characters** is:

- the **biggest job** of every writer
- the **hardest job** for nonfiction writers

Anything that differentiates your character  
from those around him/her,  
that makes them unique, unusual, or special,  
makes them *interesting*.

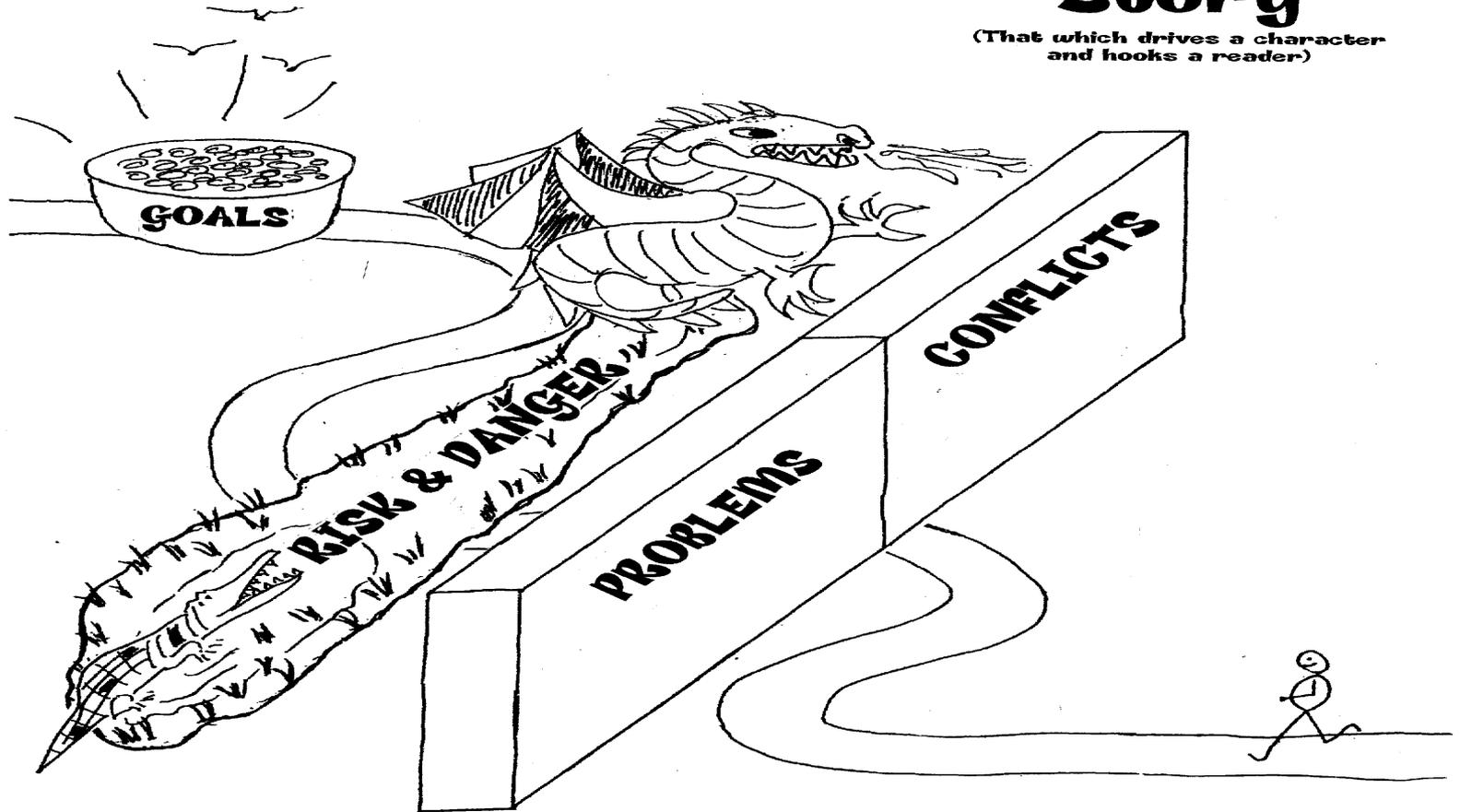
Find the things that make your character  
an *individual*.

**Bob, a one-armed, blind, crippled father who suffered from early onset of Alzheimer's disease hobbled** to the store for some milk that would keep his deathly ill son alive until the doctor arrived. Three gun-totin', bullyin' Bad Guys blocked the front door threatening his life. He risked his life and fought through the bad guys and got his milk.

The End

# The Core of a Story

(That which drives a character  
and hooks a reader)



# THE EIGHT ESSENTIAL ELEMENTS

Of Every Story/Narrative

1. Who is the **MAIN CHARACTER**?
2. What **CHARACTER TRAITS** make them interesting?
3. What do the character need to do or get (**GOAL**)?
4. Why is that goal important (**MOTIVE**)?
5. What **CONFLICTS/PROBLEMS** block the character?
6. How do they create **RISK & DANGER**?
7. What does the character do (**STRUGGLES**) to reach goal?
8. What sensory **DETAILS** will make the story seem *Real*?

What we *really* mean by the word *story*:

"A *character-based* narrative account of a character's *struggles* to overcome *obstacles* and reach a defined and important *goal* presented in sufficient *detail* to make the story real, vivid, and memorable."

Short Version: *Characters at war.*

# What *Is* a Story?

A Brief Sample

*"The Lone Ranger wanted to go to the store  
for more silver bullets.  
He was attacked by Bad Guys.  
They fought. He won."*

What's here? What's not?

# What *Is* a Story?

## A Brief Sample

*"The Lone Ranger wanted to go to the store  
for more silver bullets.  
He was attacked by Bad Guys.  
They fought. He won."*

## What's here?

A character

Implied interesting character traits

Goal (go to store)

Motive (get silver bullets)

Conflicts

Risk & Danger

Struggles

What's missing?.....*Details!*

# The **BARE BONES** Version of the **E**ight **E**ssential **E**lements

\_\_\_\_\_ (Character)

Needed \_\_\_\_\_

Because \_\_\_\_\_

But \_\_\_\_\_

So, \_\_\_\_\_

Finally \_\_\_\_\_



2. Anticipating  
the **Mind**  
of the **Audience**

# *PRIOR KNOWLEDGE*

"Banks of existing knowledge and experience about a relevant topic or narrative structure."

- Prior knowledge creates *context* for new information.
- Story structure makes new information *relevant*.

# The Magic Ingredients

- **Context:** “The surrounding parts that determine meaning; background.”
- **Relevance:** “Implying close relationship or importance.”

Applying **Prior knowledge** is how we remember.

Here are **7** groups with **20** letters.  
In 10 seconds, try to memorize the groups  
in order:

J FKFB INAT OUP SNA SAI RS

How many can you recall in order?  
(The average is just under 10 letters.)

Different **spacing** will evoke  
**PRIOR KNOWLEDGE**

Prior knowledge creates **context** and  
**relevance.**

**JFK FBI NATO UPS NASA IRS**

It's the same letters.

**J FKFB INAT OUP SNA SAI RS**

Now memory laughably easy.

That is the power of **PRIOR KNOWLEDGE**.

# Prior Knowledge

Consider the following seven sentences:

John walked on the roof.

Bill picked up the eggs.

Pete hid the ax.

Jim flew the kite.

Frank built the boat.

Harvey flipped the electric switch.

Ted wrote the play.

How many can you remember?

Who build the boat? Who flew the kite? Etc.?

You understood the sentences,  
but have no context or relevance for them,  
so weren't able to remember.

Change the **names** to invoke **prior knowledge**.

Santa Clause walked on the roof.

The Easter Bunny picked up the eggs.

George Washington hid the ax.

Benjamin Franklin flew the kite.

Noah built the boat.

Thomas Edison flipped the electric switch.

William Shakespeare wrote the play.

## Another example of **Prior Knowledge** and **Story Structure**:

### Paragraph #1

*A thirsty ant went to the river. He was carried away by the rush of the stream and was about to drown. A dove, sitting in a tree overhanging the water, plucked a leaf. The leaf fell into the stream close to the ant and the ant climbed onto it. The ant floated safely to the bank. Shortly after, a birdcatcher came and laid a trap in the tree. The ant bit and stung him on the foot. In pain, the birdcatcher threw down his trap. The noise made the dove fly away.*

# *Prior Knowledge* and *Family Stories*

When you tell stories to the family  
there is much you omit  
because they already know  
(They have banks of **prior knowledge**).

## The Curse of Knowledge:

"Once you *know*, it is *impossible* to remember what it was like to *not* know."

Once you *know*, you tend to write  
(and tell) as if  
*every reader/listener* also knew.

Write from the **audiences** known  
banks of prior knowledge

**Not** from yours; **not** from the  
scientists

## **Fact** Is Made **Relevant** by Turning It into **STORY**.

**Turner (1996)**. "Science writings imply (bury) most of the key story elements. Make those explicit and information turns into **STORY!**"

**EXAMPLE:** ***Mother pours milk into a glass.*** (an event)

Unstated: goal/motive/resolution/obstacles

**Make those explicit:** Mother has been crippled by a stroke. Left side paralyzed. Fights to regain use of left hand and arm. Obstacles: grip, gravity, slips, spills, missing the glass, overfilling the glass, embarrassment, etc. This is the first time she has tried a complex action with her left hand. She is determined to pour the milk to prove that she can....

Now its a **STICKY STORY!**

### 3. The Story *Process*

# The Process:

Merging you information **content**

with

effective **story structure**

# The Story Process:

1. Create **theme** and "take away" message.
2. Search for a core **metaphor**.
3. Define/develop story **characters**.
4. Build story **elements** around character and metaphor.
5. **Adjust** for audience and media.

# Theme Versus Goal

## GOAL:

Is for characters

Should be physical, tangible, identifiable

Defines the story's ending

Creates purpose and meaning for the story

## THEME:

Is for readers

Relates to the human condition

What writer wants readers to ponder

Let's readers interpret characters & events

Characters need not be aware of theme

**Theme** is the core of your message.

**Story** is the vehicle that effectively communicates your message and

makes that message *stick!*

# Metaphors

Metaphors create **dominate images**

Metaphors allow us to **know** the **unknowable**

# What is a *metaphor*?

“Metaphors ascribe tangible, specific, and vivid characteristics of some **known** concept onto an **unknown** or unknowable concept in order to better to understand the latter.”

Possible “**Unknowns**”: science concepts, science fields, scientific processes, science people

# What does a *Metaphor* look like?

- He was a shooting star.
- You are my sunshine.
- I am a rock; I am an island.
- Life is just a bowl of cherries.
- Seeing is believing.
- War is hell.  
...etc.

No **metaphor** is either "*right*" or "*wrong*."

They simply create **radically different views** of the world.

**Time:**

Is it money?

Is it "a river I go swimmin' in?"

Is time a predator?

Is it a gift?

Does it stand still or "keep on rollin'?"

It may be:

**Information** you want to communicate.

But **STICKY stories** create context and relevance and make information memorable.

**Accomplishment** you want to communicate.

But **obstacles** and **struggle** create STICKY stories.

**Concepts** you want to present.

But **STICKY stories** are always about **character**.

*STICKY* Stories require **conflict & problems**

- **No** conflict; **no** story.
- **No** exceptions

*STICKY* Stories require **struggles**

- If we don't **see** the struggle.
- We won't appreciate the outcome.

Sticky stories require  
*INTERESTING CHARACTER*

to provide perspective, context, and  
relevance  
for readers/listeners.

Without character, information will not  
be relevant to readers.

## Stories create:

Empathy

Context

Relevance

Connectedness

Understanding

Meaning

Memory