

## Effective Storytelling

Our brains are hard-wired for stories (Gottschall 2012). You may not think scientists are storytellers, but you actually *do* tell stories in your journal articles, conference papers, and presentations. You tell those stories to peers who know how academic stories are structured, but you will be more effective in research translation if you learn to tell stories for a non-expert audience. Rather than describing how you arrived at your findings, tell a story about how the problem presented itself and how what you learned can change things. As you engage in your projects, storytelling will help your findings engage and inform non-technical experts in ways they understand.

### What is Storytelling?

Storytelling is the process of using fact and narrative to communicate something to your audience. More specifically, storytelling is a means to share and interpret experiences. The goal is to turn your experiences into experiences shared with an audience.



#### Key Storytelling Components



Place



People



Plot



Purpose



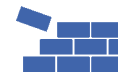
Problem



Resolution



Theme



Structure

Not all members of your audience will be able to relate well to scientific data, but they will enjoy a good story about how research can solve problems. Focus on the connections and minimize the distinctions between you and your audience. Be more than just the distinguished expert. Be the colleague with a really good story.

When you present at a conference of peers, you explain your research based on the shared experiences of research scientists. That is a story. When you present to a lay audience, the story you tell must leverage the shared experiences you have with them—the non-experts—rather than your peers with whom you share many assumptions and much knowledge.



## Basic Storytelling Tips



Use a “hook” to engage audience.



Minimize background information.



Keep it concise. Better too short than too long.



Keep to your main point. Avoid digressions.



Highlight emotional elements.



Show rather than tell.



Do not rush.



Poke fun at yourself but nobody else.



Allow and welcome interruption.

## Create and Structure Stories About Your Research

Every story has a beginning, middle, and end. The beginning introduces characters and scene. The middle develops a problem to be solved within a plot. The end resolves the problem.

- Open with an engaging anecdote about your key point to grab attention. Draw your audience in.
- Introduce main and secondary characters, and describe their relationships. Help your listeners relate to your characters as fellow human beings with a common mission.
- Describe the scene in which the action takes place. Help them see the place.
- Put your characters into the action of an unfolding plot. As your characters engage with each other, your listeners engage with your ideas about relationships.
- End with the solution and perhaps characters expressing newfound understanding.

A classic storytelling structure is the Dramatic Arc (Figure 1). It has a beginning, middle (where a climactic moment provides the greatest intensity), and an end. In many stories based on research, the climax is the evidence-based solution to a specific problem.

Telling a story is persuasion. By helping your audience to see the important relationships between people, places, and ideas, you help them understand how solutions based on scientific research can work.

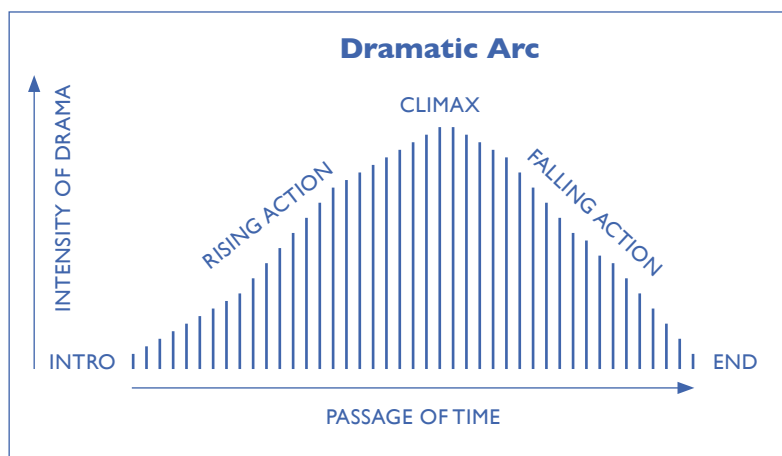


Figure 1: The Dramatic Arc (Freytag 1900)

## Ladder of Abstraction

Explaining the relationship between abstract theory and concrete action is challenging. Building a series of intermediate steps between them will be more effective when constructing your story. In this way, the reader gradually builds a chain of relationships between these seemingly distinct levels of understanding.

Consider using S.I. Hayakawa's theoretical model (1949), the Ladder of Abstraction (Figure 2), to reveal how story concepts can be understood at different levels and then build those different levels of understanding into your narrative. In this example on silage farming techniques, the farmer's aspiration is prosperity, while the daily fear is that their cow will die and jeopardize the family's livelihood. Between these two extremes are intermediary concepts that connect them.

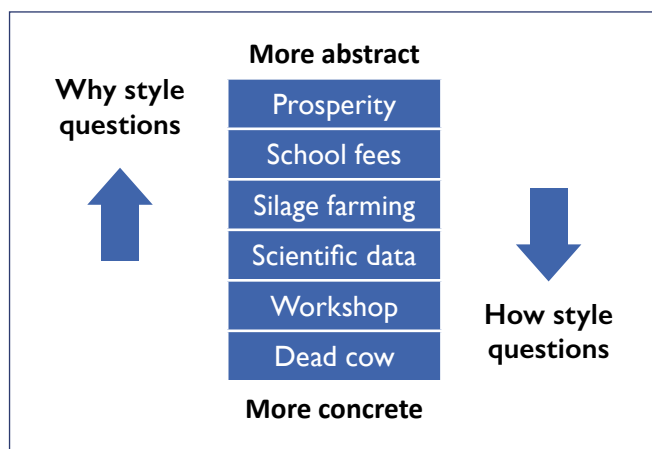


Figure 2: Ladder of Abstraction. Adapted from Barrett 2018.

The Ladder is especially useful for scientists because you generally think in abstract and conceptual ways, but must often convey concepts and findings in concrete terms to audiences far less familiar with the theories you work within. Please see the [Worksheet](#) for more details about the Ladder and watch the [Storytelling module](#) for more insight into how you can improve your storytelling.

### Additional Reading

Barrett, Tom. February 3, 2018. Up and Down the Ladder of Abstraction. <https://tombarrett.medium.com/up-and-down-the-ladder-of-abstraction-cb73533be751>.

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Gottschall, Jonathan. 2012. *The Storytelling Animal*. New York: Houghton Mifflin.

Hayakawa, Samuel I. 1949. *Language in Thought and Action*. New York: Harcourt, Brace.

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Konnikova, Maria. April 19, 2012. The Storytelling Animal: A Conversation with Jonathan Gottschall, in Literally Psyched, *Scientific American*. <https://blogs.scientificamerican.com/literally-psyched/the-storytelling-animal-a-conversation-with-jonathan-gottschall/>.

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