

Myths of Time: The Wild West!

Lesson Six



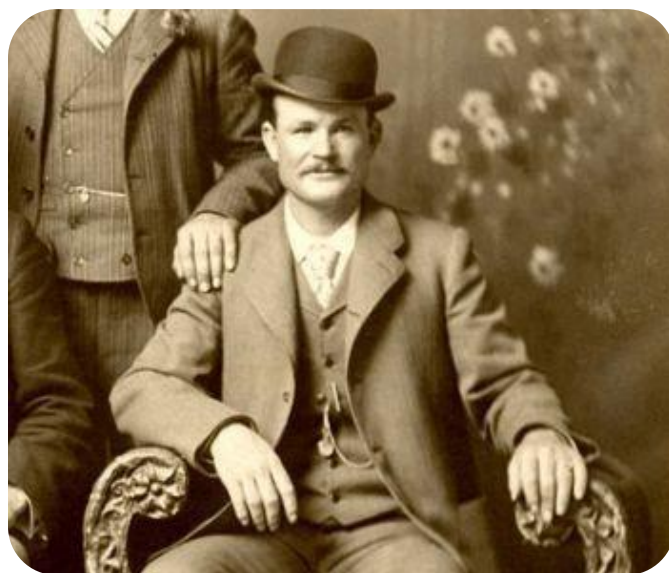
Myth #2. Cowboys Wore 'Cowboy Hats'

The Myth:

Everyone loves the cowboy hat. Even if you don't wear one, you want to see your cowboy movie heroes wearing one. Anything else would be un-American, right? The ultimate item of the cowboy outfit is of course the Stetson hat, which most of us just call a cowboy hat. There's always the boots, too, but they kind of go together as a pair.

The hats were practical, lightweight, and made with utility in mind. They had curved edges that could defend you from both sun and rain, and they made you look incredibly stylish while doing what

amounted to staring at (and singing to) cows for weeks at a time. The



curved brim, those dips in the crown, the band -- the Stetson is about as iconic as clothing gets. So if we get in our time machine and set it for 1870, we'd better be packing one of these, right?

The Reality:

Lots of people wore hats back



then, that part's true. But they seemed to wear everything *but* what we think of as "cowboy" hats.



There's Billy the Kid wearing some kind of squashed top hat and Wild Bill Hickok wearing a woman's flat pancake hat.

Legend of Stetson

One hat maker in particular became famous for his cowboy hats. In the 1860s a young hat maker from New Jersey called John Stetson moved to the dry-aired West in an attempt to cure his damp-weather-associated tuberculosis. It was here that John Stetson was inspired to create what is today considered by many to be the official cowboy hat.

The story goes that after his move to the West, Stetson happened to be on a trip, hunting for beaver. On this trip he constructed a hat from the beaver fur creating a hat of fur felt. The Spanish-derived hats he had seen in the area may well have inspired the shape of this hat. Like these Spanish-derived hats, Stetson's invention had a wide brim and a high crown. On the road, Stetson wore his creation, and on the way he came across a cowboy who admired the hat, thought it looked mighty useful, and paid Stetson a hefty sum of \$5 for it (\$147.00 today). Ever since then, cowboys have been wearing "Stetsons" and similarly designed hats.

But what you would have seen mostly back then were bowler hats. They were more popular because they were a little more versatile in various social situations, especially in a time when all men wore hats nearly all the time. In fact, famed Western historian Lucius Beebe went so far as to call it "[the hat that won the West](#)." Looking back on most portraits from the time, you can find that almost every single major name in the West owned a bowler hat, at least if they had class. Some cowboys would even wear top hats if they had gentlemanly pretensions.

Even the cowboy hats that Stetson was making in the late 1800s didn't look like the Stetson hats we call "cowboy hats" today. Originally known as "[the Boss of the Plains](#)," it looked more like modern Amish hats, and may have been just a modified sombrero.

What we consider the classic, iconic cowboy hat design didn't begin to appear until 1865 and didn't become popular until the end of the 19th century.



All of the curling and ornamentation came later, but this hat is the granddaddy of every cowboy hat in the world today. And that's not exactly what your mind jumps to when you

think of cowboy hats, is it?

Why *do* cowboys wear hats?

1. To protect against the weather



- Protection from the sun in summer: The wide brim of the hat keeps the sun's glare out of the eyes; a handy tool before the invention of sunglasses. It also helped to protect the face and neck from sunburn before sun block existed.
- Protection from the heat in summer: White and light-colored cowboy hats like those made of straw can reflect the sun's light, deflecting its heat. The high crown of the hat also helps to keep the head cool. Another trick used by cowboys on hot summer days was to dunk their hats in a nearby freshwater stream and wear their newly water-cooled hats to help fend off the heat. The hats also made a good makeshift fan.
- Protection from the cold in winter: In winter the tall crown of the hat provided a pocket of air as insulation to help conserve heat. A dark-colored wool or felt hat helps absorb light and heat to keep the head warm.
- Protection from the rain: The wide brim of the hat acts like an umbrella keeping the rain, sleet and even snow out of the face, keeping you dry. The animal-fur felt hats are the most waterproof, and even straw or wool hats can be waterproof to a certain extent, depending on the tightness of the weave. Most Stetsons are weaved tightly enough to be used to hold water to feed your horse if needs be! (2)

2. Useful for signalling from a distance

The large cowboy hat with its wide brim is perfect for signalling because it's large enough to be seen across the vast plains of the West. Before the days of cell phones, hat signalling was handy for cowboys to communicate the direction they wanted to move the cattle.

3. To use to make sleeping conditions more comfy

Cowboys sleeping out in the open air could sometimes use their hats to shut out any light if they happened to be catching some shuteye during the day. If their hats were durable enough (like some of the wool ones are), they could even make a makeshift pillow out of their hat when sleeping out on the plains at night.

4. Useful as makeshift water buckets for the horses

One of the selling points used in felt or wool Stetson hat adverts was having a picture of a cowboy giving his horse a drink of water from his hat.

Note: Do not try this with straw hats as it would probably ruin them.

5. The hat could be shaped and personalized to make it a useful identification device

The cowboy hat is soft and pliable to a certain extent. Hot steam can be used to shape it. One of the most identifying marks of a hat is in its crease pattern. In the past creases were used to indicate the identity of

Fun fact:

It used to be thought that the famous "Ten-gallon hat" was so named because of the myth that it could hold 10 gallons of water, but this isn't the case. The name actually comes from the Spanish word Galón which means "braid", because many of the authentic Spanish hats were decorated with braids, and those decorated with 10 braids were "Ten-Galón hats".



the cowboy. For example, certain creases were used for cattlemen and others for bull riders. Aside from indicating the hat-wearer's job, hat creases could also indicate information like where the cowboy was from and which ranch he was working for.

6. It can hide a bald head

Not only can a cowboy hat have all the above mentioned uses, but it is also handy for hiding a bald pate!

7. It looks 'purdy'

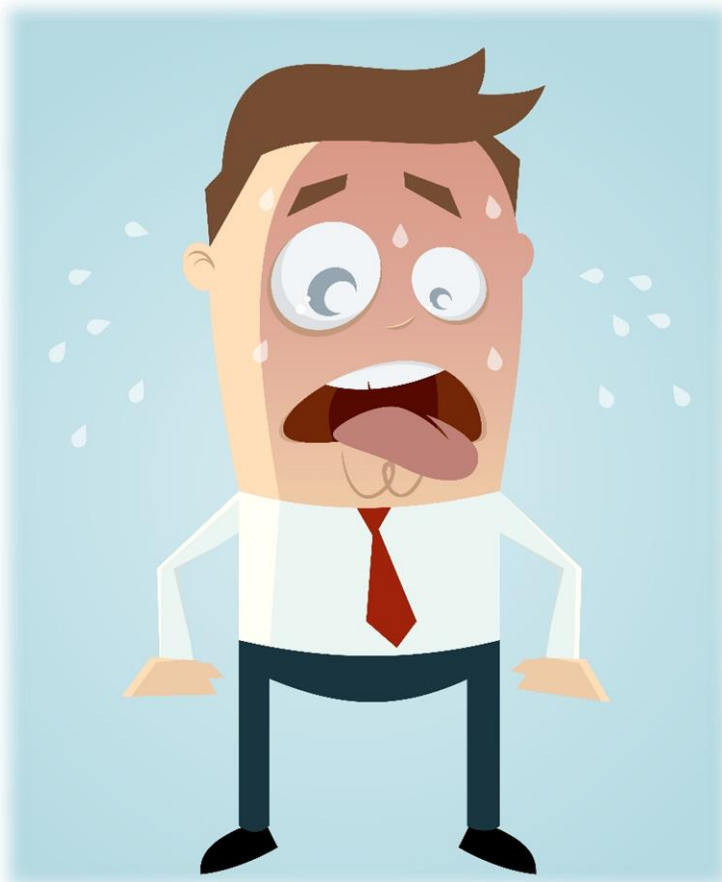
Many people in the West wear cowboy hats today for its practicality described above, but another advantage of the cowboy hat is that it can look pretty darn good! For some this is yet another benefit to wearing the hat, but for others this is the sole reason for wearing it. And why not? Just as you don't have to be a baseball player to wear a baseball cap, you don't need to be a cowboy to enjoy wearing a cowboy hat.

Hot heads!

Have you ever been told that you lose most of your body heat through your head? Or maybe you're the one doing the telling! Is it true? Let's think a little more critically ... and make sense of all this risk information that we're bombarded with the help of University of Michigan professor Andrew Maynard.

Actually, it's not about which body part is exposed but how much of your body you are exposing. The head accounts for only about 10 percent of a person's body area, so a person isn't going to lose as much as 70 percent of his or her heat through the head.

Where did the widely believed myth that 70 percent of a person's body heat escapes through the head start? It started when a military manual gave the cap too much credit due to a scientific experiment. (A 1957 British experiment that measured heat loss by having volunteers "stick their heads in a box and a thermometer up their bottoms.") The results of this experiment led people to believe that at least half a person's heat escaped



by way of an exposed noggin. And eventually it became a convenient way for parents to get their children to wear hats.

The question to don or not don a hat in cooler weather all depends on what else you are wearing. You should not expect a hat by itself to do the majority of the work to keep your body warm. If you wear thermal underwear, it's even more important to wear a hat, because the head is then the only point where heat can escape.

It's yet another myth that bald people are at a disadvantage because hair can keep the body warm. "Actually, it doesn't do that much," University of Michigan professor Andrew Maynard said. "You'd need a heck of a lot of hair to keep all that heat in."

'BOUT TO SWEAT TO DEATH!

DOES A HAT KEEP YOU **COOLER** IN THE HEAT?

This is a physics question. And the answer is that it depends on the circumstances. To begin with, *any* insulation will keep more of your body heat trapped, so we must look for circumstances where that additional warmth retention will be offset by some other cooling benefit.

We're not talking about a cozy cap. In summer a hat that allows airflow around the head and provides a bit of shade is what's called for.

The primary circumstance is where one is exposed to radiant heat, usually the sun. As you know, ambient temperature is measured "in the shade," and the sun's rays can transmit a significant amount of additional heat. A hat that provides shade can reduce that transmission significantly and reduce glare to your eyes. Another, less common scenario might be ambient temperatures $>98.6^{\circ}$ in brief exposures. You might have a cushion of "cool" (i.e., 98°) air trapped in your hat as you walk quickly from your climate-controlled car to an A/C'ed office building or house.



Hats can protect your scalp from radiant heat, but they can also lessen evaporative and convection cooling. "Most research shows that although skin head temperature increases and you feel hot, core body temperature does not," coach Mat Steinmetz says. "A cool head, however, does influence comfort, as the head impacts whole body thermal sensation"—as in, if you think you feel cool, it could make your whole body feel cool, even if your core temperature isn't actually any lower.

"In the end, I think it comes down to personal preference," Steinmetz says. "There is a lot that goes into thermoregulation in hot and humid environments. ... You should choose what you perceive as feeling



more comfortable. Your head, neck or face feeling cool has a big impact on your comfort level, even if it doesn't reduce core temperature."

Short answer: yes, especially in the desert. But only some of the time. And not while you're sitting on a shaded porch.

Other benefits. A wide-brimmed (3-inch or greater) hat covers places where it is difficult to apply sunscreen, i.e., the scalp as well as places where people often forget to apply sunscreen, such as the tops of the ears and the back of the neck. Research has shown that broad-brimmed hats provide protection equivalent to an SPF (sun protection factor) of approximately 5 for the nose, ears and neck.

Wide-brimmed hats that surround the head—covering the face, back of the neck, and sides of the neck and face—will offer the most protection.

Watch: The fascinating short film [How to Make a Hat: Science in the City](#) by the Exploratorium: Panama,



Pork Pie, Bowler, Fedora—the hat is back. Reviving the traditional art of handmade haberdashery, the women of "Paul's Hat Works" in San



Francisco guide us through their century-old hat-making process, from custom measurement and blocking of the felt blank to hand-stitched finishing and the final flange.

For more information on "Paul's Hat Works" go to <http://www.hatworksby paul.com/>

Hot Heads! Hat Debates

A hat debate involves relatively simple motions being pulled out of a hat. Often they take place with just one speaker for and one speaker against the topic, but you can also have kids get support from their teammates. Participants in the debate have a minimal (or even no) time to prepare, so it's great practice for thinking on your feet.

Pull a question or debate topic from the hat and give kids a set time limit to answer. One team member can come up and if another team member has a supporting idea they can raise their hand/trade places with their partner.

Here are some fun appropriate motions for a hat debate: *(These are simply samples designed to encourage formations of strong opinions, other statements can be added or can replace these.)*

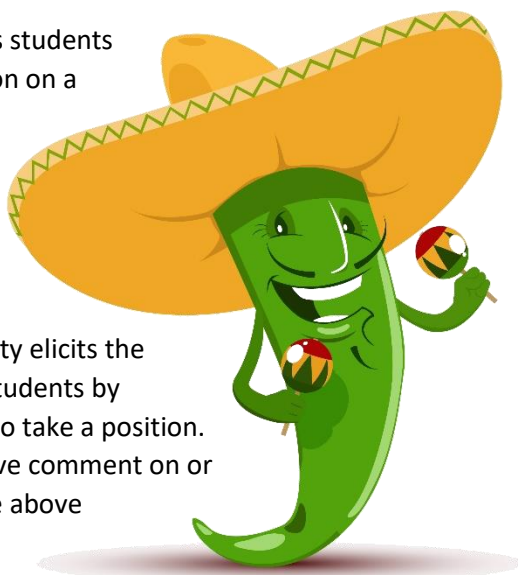
- Scientists should stop talking jargon to us and make **ideas** accessible.



- Everyone should have to wear a hat with a 3 inch brim or wider.
- Hats keep you cooler.
- Parents should lie to their kids to get them to do the right thing.
- The ability to fly would be better than the ability to be invisible.
- People who are bald should have to wear hats when out in public.
- Chocolate ice cream is the best flavor.
- It would be better to go to school in the summer and have the rest of the year off.
- It is not wrong to steal bread to feed your family.
- A thumb is a finger.

VARIATIONS: A FOUR CORNERS **HOT HEAD!** HAT DEBATE

This activity requires students to show their position on a specific statement (strongly agree, agree, disagree, strongly disagree) by standing in a particular corner of the room. This activity elicits the participation of all students by requiring everyone to take a position. Think of a provocative comment on or interpretation of the above text we just discussed or what we've been studying throughout the unit.



Label the four corners of the room with signs reading: strongly agree, agree, disagree, strongly disagree. Generate a list of controversial statements related to the material. Statements most likely to encourage discussion typically do not have one correct or obvious answer, elicit nuanced arguments (e.g., "This might be a good idea some of the time, but not all of the time"), and represent respected values on both sides of the debate.

Examples of effective "Four Corners" statements: (These are simply samples designed to encourage formations of strong opinions, other statements can be added or can replace these.)

1. *The needs of larger society are more important than the needs of the individual.*
2. *Individuals can choose their own destiny; their choices are not dictated or limited by the constraints of society.*

Pull out read one of the statements aloud, and ask students to move to the corner of the room that best represents their opinion.



Have students move to the corner that best matches their position (Strongly Agree, Somewhat Agree, Strongly Disagree, Somewhat Disagree). If social cliques are a problem, have students write their choice on a card first in order to ensure honest reactions.

Teacher Tip

For some students the teacher is the fount of all knowledge. Questioning comes from the students and answers come from the teacher, or if the teacher asks questions, it's all too easy for the teacher to end up answering those questions herself/himself. One way of encouraging independent thinking and active participation is to reverse this pattern by **only using questioning**. This means actively resisting the temptation to intervene with a response and positively thinking about what kinds of questions will push students further.

Simply try to shift the balance of your own interventions from long contributions or explanations towards sharply worded questioning, which encourages students to think more deeply or extend their ideas.

Each corner will have 2 minutes to discuss and solidify their reasoning/logic. Each group selects a spokesperson to express the group's position. He/she has 30 seconds to express thoughts concisely and persuade their classmates. (When doing so, they should refer to evidence from history, especially from material they learned in this unit, as well as other relevant information from their own experiences.)

Other groups must listen intently. After the first corner presents, invite those who have been persuaded to move to the appropriate corner. Direct each group to present their group's position in turn.

Encourage students to switch corners if someone presents an idea that causes a change of mind. After a representative from each corner has defended his or her position, you can allow students to question each other's evidence and ideas.

Before beginning the discussion, remind students about norms for having a respectful, open discussion of ideas. This is an excellent opportunity for the teacher to instruct on debate etiquette (ie. no put-downs, one speaker at a time, respect other viewpoints, etc.).



ADDITIONAL VARIANTS: I COULDN'T DISAGREE MORE!



[aka Hat Duel]

Rebuttal is the name given to points in a debate where participants disagree with what has been said by their opponents. You can practice this skill by holding short bouts of "rebuttal tennis" or "hat duels". Pairs of students sit opposite each other; one student makes a statement for, and the other immediately disagrees. One pupil makes a statement (this statement could be serious, silly, topical, controversial or obvious). The next person has to reply to the statement by saying 'I couldn't disagree more' and then give a reason why. Then the first student disagrees back ... who can keep going the longest with logical clear answers (ex. without hesitations, repeating words or talking about something unrelated to the topic?) (Perhaps their team gets a point?)

