

Are you listening to the survivors or the dead?

 [vipinkhandelwal.com /listening-survivors-dead-survivorship-bias/](http://vipinkhandelwal.com/listening-survivors-dead-survivorship-bias/)

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More than a 100 years ago, two friends started on a journey to another town to take care of some business. One part of the journey involved going through a jungle. As they walked deeper into the woods, there emerged a ferocious lion on their track. Its eyes met theirs and delivered a clear message. It was looking for food.

The two friends became terrified and a shiver went down their spine. Now, one of the friends' gathered his courage. He lifted his wooden stick in one hand and the sharp knife in another, ready to face the beast. The lion let out a roar and leapt on them.

The other friend was a timid one. The only thing that crossed his mind was to save his own life. He had a wily thought on which he acted immediately. Seeing the lion leap, he pushed the combat-ready friend towards the lion. The friend lost balance and was delivered directly into the beast's jaws. The timid friend ran, without a pause, out of the jungle only to stop when he saw a few people from his town.

He narrated a totally different story to them in which he was the one who fought the lion for his friend's life but couldn't save him. The huge lion was too big a force. That he somehow found his way back to share the news of the loss and the grief of the friend's family.

This is a pretty simple story. My question is what is your take on it?

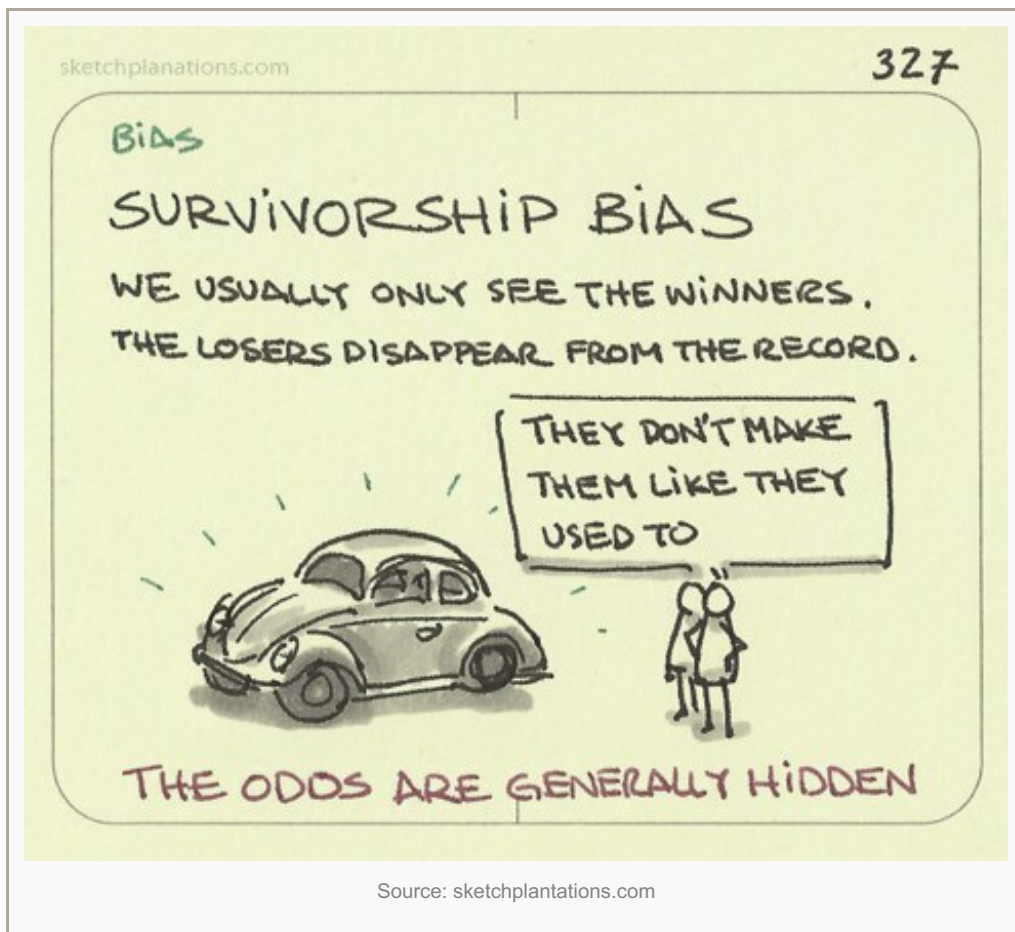
Let me share mine. My take is the dead friend's family heard the story from the one who survived, the one who lived to tell (of course, his own version) the story. They will never know what happened actually.

Now biased by the account provided, the village council hailed this friend. He received public praise for his bravery and became a role model.

And this is what happens many a times. We hear stories and lessons from those who survived, who succeeded and we form our opinions and judgments based on those survivor stories. The stories or views of those who did not survive fail to reach us. They are visible by their very absence.

We get affected by what is known as the **Survivorship Bias**.

It is our tendency to limit our understanding based on a narrow, visible sample and not the entire population thus leading to incorrect or biased conclusions.



There is an interesting anecdote from World War II about the use of Survivorship Bias or rather how it a team avoided it.

During World War II, the US Navy was looking to improve the odds of its planes and crew returning from the missions they were sent to. After all, it was the World War and chances of returning to the base were as good as tossing a coin and expecting a head or a tail. Fifty-fifty.

A well qualified team of engineers was assigned the task to look into this problem. The engineers studied the planes that returned from the missions and gathered data about where they were hit the most. As it turned out, the wings, tail gunner and the body received the most bullets.

The logical conclusion was that they should add armour plating to the spots that get hit most often by bullets, that is, wings, tail gunner and the body.

But one man on the team, Abraham Wald, thought that to be the wrong way of approaching the problem. His understanding said was that the planes that made their way back home even after being shot made it regardless of getting hit at the identified spots. Armour plating those spots would serve little purpose.

The spots that needed real attention were fuel tanks and cockpits where the survivors did not get hit. The planes that never returned were most likely hit on those spots and hence they were not the survivors.

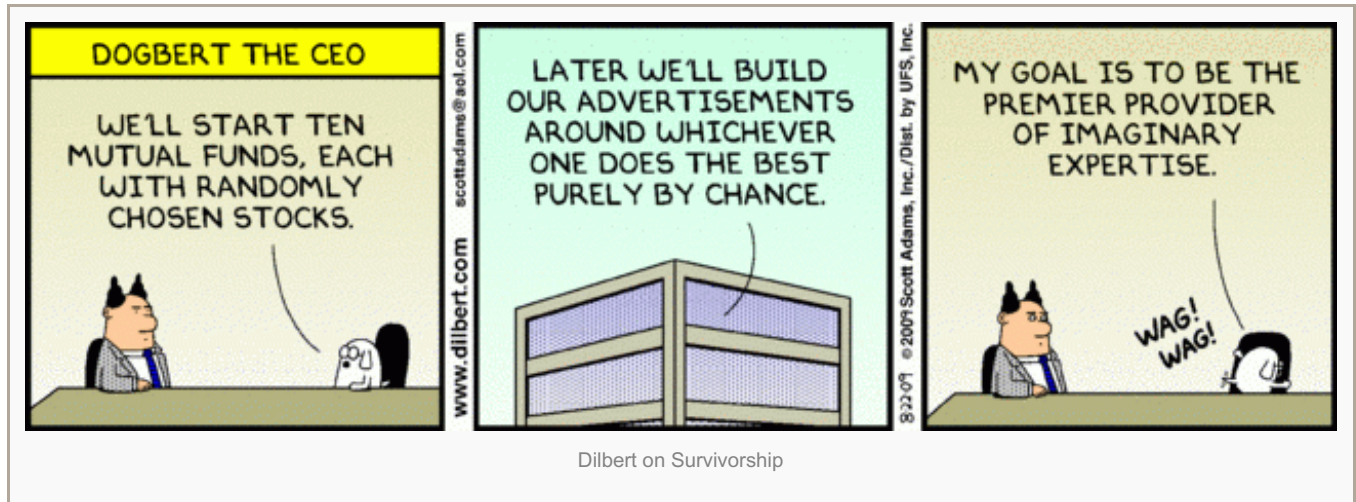
The real story lay with the dead crew and planes, not with the planes that returned. Wald, by avoiding the survivorship bias, saved the Navy a mammoth mistake.

Survivorship Bias exists everywhere

In social sciences, crimes rates are based on what is reported. Take for example rapes, a hotly debated issue these days. The number of rapes, as reported, has gone up significantly in recent times. The question is whether the number of rapes has actually increased or it is only the number of people reporting it that has gone up.

In business, survivorship bias is also far too common. Advertising of the products may take into account only the best use results thus ignoring the others. You are already aware most advertising is hyperbolic in nature showing you the best possible and not making you aware of the downsides.

In the field of finance and investing too, mutual funds or hedge funds tom-tom (*read: advertise*) the performance of their *best performing funds* with absolutely no mention of the ones that did not perform. In fact, those that did not perform are either closed down or merged with the better performing ones. You are biased into believing that there are no mistakes that the investment company can make.



Several people including friends, family and experts boast to you about their superior investment performance and how they made it happen through special tips and tricks. And you can see yourself asking for those tips and taking the same bets. Again, it is this bias at work.

The ones who could not make it or who lost tons of money do not come back to tell their tales. You never come to know how it feels to be hurt financially and emotionally.

Now, there is nothing wrong in learning from the survivors. I believe they teach us *what to do*. However, that should miss out on critical lessons that can come from those who could not make it. Because they too can teach us something more important – *what not to do*.

Sometimes those who fail did despite their best efforts, intelligence and resources. And we would do well to pay heed to the learnings and experiences of these who could not succeed or survive.

Surviving the Survivorship Bias

How do you avoid the survivorship bias?

The answer lies in a question. You need to often ask “*What’s missing?*” or “*What’s in here that I can’t see?*”. If you get yourself around to asking this question repeatedly, there is a fair chance that you would escape becoming a victim to the bias.

It is the same question Wald must have asked when he looked at those bullet-hit planes.

| *Accept nothing without questioning it.*

Finally, be aware that the survivorship bias exists. You can be biased too. This awareness itself would save you from making poor decisions that could result in costly mistakes.