Rules of Reason

Making and Evaluating Claims

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Preface

Back in 2012, after several years of being immersed in online debate for far more hours a day than I am proud to admit, I wrote the book, *Logically Fallacious*, which is like an encyclopedia of logical fallacies that identifies hundreds of common errors in reasoning. Since that time, I have been running the website of the same name where I help people from around the world parse arguments and identify if the arguments contain fallacies or not. What became clear is that identifying errors in reasoning will only get us so far to mastering reason. What is needed to get us all the way there are some rules to doing it right or *rules of reason*.

These rules of reason are unlike the immutable laws of logic. Laws reflect the way things are, whereas rules are more like guidelines that, when followed, consistently produce the most favorable outcome. Rules can be bent, and some even broken, especially in extenuating circumstances.

Think of these rules of reason like nutrition guidelines. Although nutrition guidelines are continually changing based on new information, the changes are relatively minor. It is highly unlikely that it will one day be discovered that we should be consuming twice as many calories or that fresh vegetables are bad for us, and we should be eating more Twinkies. We follow the general guidelines and make tweaks that work with our particular circumstances. Likewise, the rules of reason are the general guidelines to which tweaks can be made based on the particular circumstances.

This book contains the rules of reason for making and evaluating claims, which I believe to be an area where reason is most needed. Keep in mind that not all rules apply to all claims; some rules address certain kinds of claims, such as claims of causality and analogies. Properly and reasonably evaluating claims can have a dramatic impact on both your personal and professional life. Appealing to a higher cause, that cause being the stability of a democratic society, you can

see it as your civic duty to do what you can to be an informed and responsible citizen. Knowing how to reason through claims should be knowledge taught in grade school.

Our goal in this book is to **evaluate the strength of claims, including the ones that we make.** We won't be going as far as to accept or reject claims, as that requires a deep understanding of evaluating evidence. But without a strong, clear, and well-presented claim, the evaluation of evidence can be a waste of time and even lead us to poor conclusions.

For evaluation purposes, we base the strength of a claim on how **clear** and **precise** it is, not how true it might be. The **strength of a claim** should not be confused with the **strength of an argument**, which includes one or more reasons for the claim. The claim "a living unicorn (i.e., the horse-like creature with a single horn from its head) is currently in my bedroom" is a strong claim despite the fact that it is almost certainly untrue.

In this book, we will be looking at eleven rules for making and evaluating claims, and going through many examples along the way. By the time you have finished this short book, no matter how good you were before at evaluating claims, I guarantee[1] that you will be even better at it.

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[1] I don't mean a real guarantee like I will give you your money back or anything, just I am really confident about it and saying "guarantee" sounds really good.

Introduction

A *claim* is defined as a statement that something is the case, typically without being supported by evidence or proof. Unlike opinions, claims are independent of values and beliefs. The truth of the claim is unaffected by who makes the claim whether it be a staunch conservative or a life-long liberal. Consider this claim:

> *My husband is having sex with another woman.*

If proof or convincing evidence was provided as part of the claim, the evaluation would be more of an exercise of validating the evidence, which is beyond the scope of this book. For the sake of comparison, however, let's look at this claim presented with evidence.

> *I caught my husband having sex with another woman. I recorded it and uploaded it on MyHusbandisaCheatingBastard.com. I also uploaded a copy on MyHusbandsMistressisaTramp.com. While I was at it, I added Spanish subtitles and uploaded a copy to NoBuenoelEsposo.com.*

When evidence is provided, reviewing the evidence is the "low-hanging fruit" of claim evaluation, meaning it is quite often the quickest and most accurate way to confirm that which was claimed to be the case is indeed the case. Too often, however, the wrong evidence is sought after based on a weak claim. Consider the following:

> *My husband is cheating on me with another woman. A woman at the nail salon mentioned that her husband's bowling buddy saw my*

husband talking closely for hours with a woman who wasn't me.

We can argue that this is not evidence for her husband cheating on her and the woman making the claim can argue that it is clear evidence, and we can both be right. The claim is weak because it is *ambiguous*; we don't know what "cheating" refers to in this case. The woman might be defining "cheating" as emotional intimacy with another person who is not family. We might define "cheating" as having sex with a person who is not your spouse. We should not focus on the evidence until we fully understand the claim.

Depending on the claim, good-quality evidence might not even be possible. If a claim is *falsifiable*, it means that evidence can exist that proves the claim to be false. For example,

"Anybody that wants a test can get a test. That's what the bottom line is."

All it would take to falsify this claim is for someone, anyone, to want a test, attempt to get it, and fail.

Claims can also be *unfalsifiable*, which means no evidence can exist that would prove the claim to be false. Consider the following claim:

You can have anything you want as long as you want it badly enough!

Through probability alone, some people will get what they want, and some people won't. Those who get what they want lend support to this claim and those who don't either just didn't get it yet since no timeframe was specified or it can be claimed that they simply didn't want it badly enough, in either case, not taking away from the credibility of the claim. This is what gives staying power to such claims and make

unfalsifiable claims prime drivers of pseudoscience, marketing scams, and religions.

Sometimes, the probability of claims being true is not mathematically calculable; that is, their probabilities are unknowable. Recall that our goal in this book is only to evaluate the strength of the claim and not how likely the claim is to be true. But we do need to briefly look at how an unknown probability affects the veracity of the claim. Consider the following claim:

Jesus was raised from the dead.

The fact is, we have zero proven or demonstrated cases of anyone ever being raised from the dead, but many claimed cases. Given this, we can't calculate the percent chance that Jesus was raised from the dead. We can use what is called *Bayesian statistics* to estimate a probability, but this requires initial assumptions that make the estimated percent highly susceptible to bias. When we can't calculate a probability, we can still compare claims to competing claims and make use of the *principle of parsimony* to choose the more reasonable claim.

Consider the following claims:

1. The God of the Bible created the universe.

2. There was some god who created the universe.

3. Something caused the universe to come into existence.

Note that there is no reason all three claims can't be true. Just because they are *competing* doesn't mean they are *contradicting*. Although we cannot calculate the probabilities of any of these claims, we know that statistically, claim #3 contains the fewest assumptions and

is, therefore, most likely to be true. Claim #2 contains claim #3, plus it adds all of the properties of what a "god" is. Claim #1 contains claims #2 and #3, plus all of the properties as written in the Bible. Even though it is more likely that "something" caused the universe to come into existence than "the God of the Bible" created the universe, the claim that "something" caused the universe to come into existence is not very helpful and somewhat pointless, which is why we often sacrifice probability for a more specific claim.

Now that you have a decent primer on the issues with claims let's get into the eleven rules of reason for making and evaluating claims.

Know Thyself

Reasoning is a process that is strongly influenced by many factors that are not easily apparent to us. Both biology and environment shape who we are and how we think. While we are not in complete control of our intellect and reasoning, we do have some control, and we can get even more control by knowing our cognitive limitations and keeping those limitations in mind when making and evaluating claims.

Rule #1: Acknowledge the Limits of Your Knowledge Regarding the Claim

It has been said that a little knowledge is a dangerous thing, and the advent of the Internet has certainly provided us with many examples where this is true. Keyboard warriors who spend a few hours on Google and YouTube convince themselves that they know more than doctors, researchers, scientists, and academics who spend their lives studying a narrow field where they have attained mastery. Even the doctors, researchers, scientists, and academics can convince themselves that they know far more than they do. We all need to acknowledge the limits of our knowledge.

We don't know what we don't know, or to put another way, without knowing how much there is to know about a particular topic, we have no way to know how much about that topic we do know. Unfortunately for us, we grossly overestimate our knowledge and competence. This is a well-known effect in psychology, known as the *Dunning-Kruger effect*. The good news is, if we realize that we are likely to be victims of this effect, we can take this into consideration and lower our estimate of how much we actually know. Once we have an accurate assessment of our knowledge on the topic, we can identify and defer to people who know more than we do on the topic. When we realize that there is still more we can learn on the topic; we will be less resistant to related information that could increase our understanding of the topic.

Even if you are confident in your level of knowledge on the topic, realize that factual information or good advice can come from those people and sources less knowledgeable than you on the topic. Dismissing information solely on the source, although reasonable at times depending on the source and situation, is a fallacy known as the *genetic fallacy*. To illustrate this point, just think about a time when someone tried to "educate" you on a topic about which you actually knew far more they did. You probably felt that they

were patronizing or that they were ignorant, and as a result, resisted the information they shared. What you might not have realized at the time is that even if the information they presented was factually correct or a good suggestion, your convictions of you being right led you to dismiss the factually correct information over the preservation of your believed "rightness." The result... you missed an opportunity to become even more knowledgeable on the topic, not to mention, you almost certainly appeared ignorant to the other person.

Rule Summary: Understand that there is likely much you don't know on the topic and realize that even sources that are frequently wrong are sometimes right.