ABSTRACT

Title of Document: ELEMENTS OF DISBELIEF: A CASE STUDY OF

9/11 TRUTHERS AND THE PERSISTENCE OF MISINFORMATION IN THE DIGITAL AGE

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This thesis examines the essential question: "Do facts matter?" By analyzing the persistence of false beliefs surrounding the September 11, 2001 attack on the Pentagon and the resiliency of alternative counterfactual narratives, this thesis attempts to bring about a better understanding of why myths and misinformation persist so long after clear evidence and common sense would seem to discredit them. The perspective includes the author's personal experience as inadvertent grist for the mill of conspiracy theorists, those who call themselves "9/11 truthers." While it has certainly always been the case that false beliefs can become commonly held misconceptions, this thesis will argue that the Internet has served as a "forcemultiplier," giving some nonsensical beliefs virtual eternal life. But the Internet also can, and often does, serve a corrective function, through crowd-sourcing and factchecking. Still, the question of the efficacy and persuasiveness of fact-based reporting is paramount if one believes a healthy and functioning democracy depends on a wellinformed citizenry, and that journalists play a vital, sometimes unique, role in informing the public.

ELEMENTS OF DISBELIEF: A CASE STUDY OF 9/11 TRUTHERS AND THE PERSISTENCE OF MISINFORMATION IN THE DIGITAL AGE

By

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Thesis submitted to the Faculty of the Graduate School of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Master of Arts, Journalism 2014

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"Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passions, they cannot alter the state of facts and evidence."

John Adams, Argument in Defense of Soldiers in the Boston Massacre Trials,

Dec, 1770.¹

"It ain't so much the things we don't know that get us into trouble. It's the things we know that just ain't so."

Attributed to Mark Twain²

The summation of John Adams in Rex v Wemms (The Soldiers Trial), *The Legal Papers of John Adams*, No. 64, Rex v Wemms, December 1770.

http://law2.umkc.edu/faculty/projects/ftrials/bostonmassacre/adamssummation.html ² Ralph Keyes, *The Quote Verifier* (New York: St. Martin's 2006), 3. While Keyes says this quote in various forms is attributed most often to Mark Twain, he writes that Twain's biographer Albert Bigelow Paine says Twain was paraphrasing a remark by humorist Josh Billings.

Preface

It was a hot July day in 2013 as I walked across the campus of the University of Maryland at College Park. Few students were in evidence, save for the clusters of new prospects and their parents taking tours. There was little shade as I headed from the Journalism building on the western side of campus to McKeldin Library in the heart. In the cool of the library I made my way to the reservations desk.

"I need to pick up a book for my thesis research," I told the student behind the desk as I handed him my ID card. He returned with the book, "Debunking 9/11 Myths."

"Doing a thesis on 9/11?" he asked half-heartedly, as he checked me out.

"Why, yes I am," I replied. "So let me ask you, do you think the government was behind the September 11 attacks?"

"I couldn't say," he answered. "There are strong arguments on both sides."

"That's what I'm writing about, why smart people still think there are strong arguments on both sides, when," I paused, "actually there are not."

With that I turned away and headed back into the summer heat.

Foreword

While this thesis examines various conspiracy theories surrounding the September 11 attack on the Pentagon, it is not my intention to reinvestigate or to further debunk the many false beliefs about the event. Rather, my desire is to better understand the staying power of those false beliefs and their stubborn resistance to fact-checking or attempts at corrective reporting.

This paper starts from the premise that American Airlines Flight 77 was indisputably flown into the Pentagon September 11, 2001, killing all on board, as well as victims in the Pentagon.

All reliable evidence supports that premise. If you are unconvinced and looking for further debate or more definitive proof, you've come to the wrong place.

Dedication

This thesis can only be dedicated to one person: my wife Roberta, who over the years often bit her tongue and rarely, if ever, asked me, "So, how's the thesis coming?"

She also served as my proofreader and sounding board, which was crucial to dragging this project across the finish line.

Acknowledgments

I would like to acknowledge the unflagging support I received from my thesis advisor, Dr. Ira Chinoy, who would have been totally justified in throwing up his hands and giving up on me. But instead he encouraged, cajoled, and gently chided me into completing this work.

I would also like to acknowledge the invaluable contribution of dear friends

Walt and Elizabeth Tinling for the generous use of their secluded cottage in the

woods of Queen Anne's County, Maryland, which allowed me to complete the heavy

lifting of writing this thesis far away from the unending distractions of modern,

hyper-connected life.

Thank you.

Table of Contents

Preface	ii
Foreword	iii
Dedication	iv
Acknowledgments	V
Table of Contents	vi
List of Illustrations	vii
Chapter 1: Introduction	1
Chapter 2: The Birth and Undeath of an Untruth	12
Chapter 3: Correcting the Record and Resistance to Evidence	26
Chapter 4: Elements of Self-Delusion	36
Chapter 5: Elements of Deception	54
Chapter 6: Elements of Correction	63
Chapter 7: Conclusions	77
Bibliography	88

List of Illustrations

Figure 1: "Show Me the Plane" bumper sticker	1
Figure 2: Pentagon crash site, Department of Defense Photo	12
Figure 3: Pentagon crash site, Author Photo	13
Figure 4: Pentagon crash site, Author Photo	14
Figure 5: Author reporting on September 11, 2001	15
Figure 6: Judy Woodruff debriefs author on CNN	18
Figure 7: Security Camera images obtained by CNN	28

Chapter 1: Introduction

This thesis attempts to more fully understand the factors that contribute to the prevalence of misinformation and counterfactual beliefs in the digital age, and the ability and limits of traditional journalism to correct them.

It is self-evident that many widely accepted beliefs today are demonstrably untrue, along with widespread skepticism about things that are demonstrably true. The persistence of far-fetched ideas can be surprisingly enduring and stubbornly resistant to even a frontal assault employing undisputed facts and iron-clad logic.

By example:

Shortly after joining NPR as a newscaster for *All Things Considered* in 2011, I received a letter in the mail from a listener who enclosed what he said was a sticker for my cubicle at NPR. The sticker, blue with white letters, said simply, "Show Me the Plane Hitting the Pentagon."



Figure 1 - Bumper sticker mailed to author

The listener was a doubter, one of many who don't believe a plane crashed into the Pentagon on September 11, 2001, and in support of his disbelief, he quoted my own words to me from a report I gave on CNN that day, saying he thought they were a "fair reflection" of my "true experience."

The brief excerpt he cited from a longer extemporaneous report delivered live on CNN late in the day was this: "From my close-up inspection, there's no evidence of a plane crashing anywhere near the Pentagon..."

He said some not very nice things about my journalistic abilities and lack of moral courage, and he accused me of not having the guts to tell "the real story" of what happened.

This was 10 years after the event. He wrote, "Believe me when I say, I am only one of literally millions of people who are onto it," (the coverup). The writer is just one of dozens of self-described "9/11 truthers" with whom I've had some kind of personal interaction over the years, who remain convinced the version of events reported by the media is a lie and that the September 11 attacks were, in effect, an "inside job."

It is true if you do an Internet search for "Jamie McIntyre" and "9/11" a video clip of me uttering those exact words, "there's no evidence of a plane crashing anywhere near the Pentagon," will come up as the top result. And to my chagrin, that snippet, which was taken wildly out of context, has over the years been deliberately misunderstood, misinterpreted, and misreported to advance a false narrative of the events of September 11, as well as to raise specious questions about the widely-accepted official account.

In my role as a reporter at CNN, I did a series of stories attempting to bring more facts to the story and placing my words from September 11 in their proper

context. I posted pictures of the plane wreckage.³ I profiled people who were debunking 9/11 myths. I even engaged some of the skeptics directly, talking to them by phone, explaining how my words had been distorted. But to my surprise, in all the years since September 11, I have yet to convince a single doubter of the falseness of the various alternative narratives. I could not find any evidence that any mind was changed by my efforts.

It would seem that correcting the record on something as straightforward as to whether a commercial airliner with 64 people on board, which no one disputes took off from Washington's Dulles Airport, ended its flight in a fireball at the Pentagon would be a relatively uncomplicated task. After all there are radar tracks, eyewitness reports, calls from passengers on the plane, wreckage at the site, human remains, and no plausible alternative explanation for what happened to the plane.

While polls indicate a majority of Americans accept what would appear to be the obvious truth of the account in the U.S. government official 9/11 Commission Report, the fact that a sizable minority still believe an alternative narrative raises questions about whether facts can win in today's digital marketplace, where all points of view can seem equally valid. ⁴

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³ Jamie McIntyre, "The Immortal 9/11 Conspiracy," *Line of Departure*, September 11, 2010. http://lineofdeparturearchive.blogspot.com/2013/06/the-immortal-911-conspiracy-by-jamie.html

⁴ Thomas Hargrove and Guido H. Stemple. "Was 9/11 an 'inside job'?" *Seattle Post-Intelligencer*, August 2, 2006. The poll conducted by Ohio University found 36 percent percent of national survey of 1,010 respondents said it is "very likely" or "somewhat likely" that federal officials either participated in the attacks on the World Trade Center and the Pentagon, or took no action to stop them. Twelve percent suspected the Pentagon was struck by a military cruise missile rather than by an airliner captured by terrorists. http://www.seattlepi.com/news/article/Was-9-11-aninside-job-1210643.php

My small part in this social phenomenon, in which intelligent and often sincerely motivated people perpetuate a clearly preposterous alternate theory of what happened, and then have it accepted by tens of thousands, if not millions of people, prompted my interest in the power of facts, and more specifically authoritative fact-based journalism to inform public beliefs. As Thomas Patterson observes in his 2013 book, *Informing the News*,

It is a short step from misinformation to mischief... It is nearly impossible to have sensible public deliberation when large numbers of people are out of touch with reality. Without agreement on the facts, arguments have no foundation on which to build. Recent debates on everything from foreign policy to the federal budget have fractured or sputtered because of a factual deficit.⁵

This thesis focuses on a single well-documented event, the September 11, 2001, attack on the Pentagon, because it illustrates both ends of the spectrum in the search for truth.

On the one hand, an exhaustive investigation by a bipartisan panel of disinterested parties established conclusively what the evidence supports, regarding the September 11 attacks. Yet all the facts, testimony and extensive documentation did nothing to resolve the doubts of skeptics and conspiracy theorists who found the

4

⁵ Thomas Patterson, *Informing the News, The Need For Knowledge-Based Journalism* (New York: Vintage, 2013), 4-5.

mountain of evidence unpersuasive.⁶ This raises the question in my mind: how is it that the trail of such clear and convincing evidence can lead thinking people to such different destinations?

The ramifications of this persistence of misinformation are profound, not just for putting to rest a single conspiracy theory, which has been debunked by everyone from CNN to the editors of *Popular Mechanics*, but also for larger and more important issues of our day, such as climate change and vaccine safety. ⁷ The same faulty logic, muddled thinking, and hidden agendas that are used to undermine belief in the government account of the 9/11 attack on the Pentagon can be found in attacks on many other questions which have largely been resolved by science.

There is, of course, always room for doubt, and healthy skepticism is an important part of critical thinking, something scientist Dennis R. Trumble calls "normal scientific uncertainty." But in his book, *The Way of Science*, he also argues that normal uncertainty is often twisted and exploited to create false doubt about the "legitimacy of real scientific knowledge."

Although science makes no claim to knowledge that is absolute, the scientific process has proven to be far and away the most open, direct, and dependable way there is to tell the truth from fiction. And there has never been a time when making that distinction has been more important. Now more than ever we need to recognize that scientific literacy and critical thinking are not just tools for professional scientists: they are basic life skills, as vital to our personal and intellectual growth as reading, writing, and arithmetic.

⁷ David Dunbar and Brad Reagan, *Debunking 9/11 Myths, Why Conspiracy Theories Can't Stand Up to the Facts* (New York: Hearst, 2006).

5

⁶ The 9/11 Commission Report, Final Report of the National Commission on Terrorist Attacks Upon the United States, Official Government Edition, 2003.

⁸ Dennis R. Trumble, *The Way of Science, Finding Truth and Meaning in a Scientific Worldview* (New York: Prometheus, 2013), 14.

In this thesis I will resist the temptation of some to dismiss those with unconventional or counterfactual beliefs as "true believers" or "dyed-in-the-wool fanatics" who can't change their minds and won't change the subject. In my personal dealings with 9/11 skeptics I have found that not to be the case. Most are highly intelligent, well-informed, and passionate debaters. They often see themselves as genuine "truth-seekers," who believe they are being lied to by their government, big business, and the news media.

It is important to keep in mind that rejection of the current scientific consensus or mistrust of the government are not, in and of themselves, irrational traits, nor necessarily any indication of giving in to conspiratorial thinking. Scientific consensus does change, and often dramatically and unexpectedly. For instance, it is now believed that dietary fat does not lead to obesity, contrary to what we were told in the 1980s and 1990s. And governments do in fact lie, as in the now infamous 1964 Gulf of Tonkin incident, the "cassis belli" of the Vietnam war.

On August 5, 1964, President Lyndon Johnson told the nation in a televised address that "United States ships on the high seas" had been the targets of an unprovoked attack by North Vietnamese patrol boats.¹⁰ History would later show that was a lie, and not just an untruth, but a knowing falsehood.¹¹

⁹ Bryan Walsh, "Ending the War on Fat," *Time Magazine*, June 12, 2014.

¹⁰ Lyndon Johnson - Report on the Gulf of Tonkin Incident, August 4, 1964, Miller Center of Public Affairs, University of Virginia, Video Courtesy The LBJ Presidential Library. https://www.youtube.com/watch?v=Dx8-ffiYyzA

¹¹ Charles Lewis, *935 Lies, The Future of Truth and the Decline of America's Moral Integrity* (New York: Perseus, 2014), 7.

In the lead-up to the Iraq War in 2002, many things the U.S. government stated as fact turned out not to be accurate. Investigative journalist Charles Lewis was part of a team of reporters and researchers working for the Center for Public Integrity. The researchers documented what they judged to be at least 935 false statements made by either President George W. Bush or seven top officials of his administration. Hence the title of his 2014 book, *935 Lies*. ¹²

Lewis, a self-described "professional truth seeker," shares some of the sensibilities and profound mistrust of government of the so-called conspiracy theorists:

Politicians, captains of industry and their zealous aides too often resemble circus barkers, shilling for attention and advantage with little regard for accuracy or veracity, using the press and the news media, not to enlighten but to bamboozle the public in pursuit of votes, profits and power. When necessary they even employ the wiles of deception to conceal, disguise or justify unseemly and sometimes outright criminal behavior.

If a well-respected journalist such as Lewis has such a low opinion of the "facts" that come from the government's official versions of events, who can blame the average citizen for being predisposed to disbelieve their leaders, along with the media that often parrot those leaders' self-serving deceptions?

For journalists and the public at large, the question becomes: when does a healthy skepticism cross the line into an unwholesome cynicism that creates an impregnable barrier which no facts can penetrate?

In 1919, in what is considered by many to be one of the greatest opinions in American law, Supreme Court Justice Oliver Wendell Holmes argued in dissent: "the ultimate good desired is better reached by free trade in ideas – that the best test of

7

¹² Lewis, 935 Lies, xiii.

truth is the power of the thought to get itself accepted in the competition of the market " 13

This notion that all opinions are welcome, and that in the marketplace of free expression the most valid will rise to acceptance, is an important underpinning to the democratic system. Good government requires an informed and enlightened populace, and one might well argue that significant belief in false narratives undermines that bedrock principle.

In his book, *On Rumors*, Harvard Law Professor Cass Sunstein maintains that for some rumors the marketplace simply does not work as an antidote, or is at best an incomplete corrective. "Far from being the best test of truth," he writes, "the marketplace can ensure that many people accept falsehoods, or that they take mere fragments of lives, or small events, as representative of some alarming whole. The problem is serious and pervasive, and with the growing influence of the Internet and new kinds of surveillance, it seems to be increasing." ¹⁴

The reasons rational people may believe irrational, illogical, or unproven narratives are many and varied, and involve psychological phenomena beyond the scope of a single paper. So for this thesis, I will examine a single persistent alternate narrative involving the September 11, 2001, terrorist attack on the Pentagon, and examine how the false narrative was constructed, how it survives sophisticated and

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¹³ Oliver Wendell Holmes, *Abrams v. United States* Dissenting Opinion, November 10, 1919, 3.

http://www.law.cornell.edu/supct/html/historics/USSC_CR_0250_0616_ZD.html ¹⁴ Cass Sunstein, *On Rumors: How Falsehoods Spread, Why We Believe Them, What Can Be Done* (New York: Farrar, Straus, and Giroux, 2009), 10.

reasoned attempts at debunking, and what that suggests for the future of fact-based journalism.

Plan of Thesis

In my introduction, I have outlined how I first became intrigued by this thesis topic and why I decided on a semi-autobiographical approach. I was in the Pentagon on September 11, and I experienced firsthand how unknowingly and unwittingly my words, taken out of context, became a small cog in an international conspiracy-theory generating machine. It was this direct experience that set me on a quest to better understand how what I experienced influenced others in ways I would never have imagined.

In my second chapter, I explore how the myth of an "inside job" at the Pentagon started and how it grew over time, like a snowball gathering speed and mass as it rolls downhill. I demonstrate how my extemporaneous and seemingly innocuous choice of words in my description of the crash scene at the Pentagon became part of a "zombie" theory that would defy all attempts to drive a stake through it. The "untruth" lives on today, more than a decade after the events.

In Chapter 3, I look at what attempts were made to correct the record, including my own efforts as a CNN correspondent to do stories debunking the conspiracy theories and to bring facts to bear on nonsensical and illogical beliefs. I also examine how a much more comprehensive and exhaustive attempt at debunking by the editors of *Popular Mechanics* has met a similar unsatisfactory result.

Chapter 4 begins to unravel the "why." Why do people believe counterfactual narratives, such as the myths surrounding the Pentagon attack, long after they have

been thoroughly and definitively debunked? I review the literature and scientific research into how and why we fool ourselves into believing fantastic narratives unsupported by facts. The surprising findings indicate we are not the logical rational creatures we think we are.

Sometimes we fool ourselves. At times we are fooled by others, sometimes deliberately, sometimes because others have fooled themselves and take us along for the ride. In Chapter 5, I examine the literature on how messages are crafted in ways that trick our brains into thinking they are plausible, the tactics and techniques of agitprop and propaganda, and how they add to the overall confusion about what is true and what is not. I use the research to better understand the science behind why intelligent people can hold illogical beliefs, such as the idea that a plane took off September 11 and vanished into thin air at the same time a missile from nowhere hit the Pentagon.

In Chapter 6, I present and evaluate three different strategies for countering and correcting misinformation in the digital age. The first is improved journalism and journalism training that is aimed at producing a product that better informs the public. The second proposed strategy is tougher laws that would in theory provide a "chilling effect" against deliberate deception and mischief. And third is the rise of independent fact-checkers, who attempt to arbitrate disputes on what is accurate, and what is misleading.

In my concluding Chapter 7, I take all the information I have gathered about the lifespan of misinformation, the limits of corrective efforts, the psychology of human beings, and the empiricism of the scientific method, and I try to draw a larger conclusion about what, if anything, can be done to bring beliefs back in line with reality. The answer, as one might suspect, is that there is no quick fix, no magic bullet that will transform the members of society into high-level critical thinkers. But I conclude that the answer does lie more with educating the consumers of news and stressing media literacy, rather than trying to correct everyone who is wrong about something important on the Internet.

Chapter 2: The Birth and Undeath of an Untruth

At 9:37:45 the morning of September 11, 2001, I didn't feel a thing as I sat at my desk in my office in room 2E772 on the Pentagon's outer E ring. The first I knew a plane had hit the Pentagon was about five minutes later when I saw it on CNN. A crawl across the bottom of the screen under the images of the smoking twin towers in New York said an aircraft had hit the Pentagon.



Figure 2 – Pentagon crash site. Department of Defense photo, September 14, 2001.

CNN could report this because my co-worker and producer was arriving at work at the precise moment when American Airlines Flight 77, commandeered by five hijackers, hit the south side of the building and exploded in a huge fireball that

would claim 184 victims, plus the terrorists. ^{15.} He called in the first report at 9:42 a.m. just before cell phone service became overwhelmed and unreliable.

I knew in an instant the world had changed. It had been a slow summer covering the Pentagon for CNN: the news cycle had been dominated by reports of shark attacks and the mysterious disappearance of intern Chandra Levy. Now I could see that I would be busy around the clock for the foreseeable future.



Figure 3 - Pentagon crash site. Photo by author, September 11, 2001.

¹⁵ The 9/11 Commission Report, 10.



Figure 4 - Shards of fuselage. Photo by author, September 11, 2001.

I rushed to the scene. As fire trucks poured water on the crash site, I photographed thousands of shards of metal that covered the Pentagon heliport, along with a few bigger pieces of plane wreckage. And I gave my firsthand account on CNN, whenever the network could break away from the bigger tragedy unfolding in Manhattan.

And somewhere about seven hours into my reporting, I uttered the extemporaneous words that would earn me an indelible place in the hearts of conspiracy theorists around the world.

"From my close-up inspection, I can tell you there's no sign a plane crashed anywhere near the Pentagon..."



Figure 5 - Author reports on Pentagon attack. Photo courtesy CNN. September 11, 2001.

It would be a few months before I would understand how those words would become the linchpin of one of the world's most enduring conspiracy theories: that 9/11 was an inside job, with the explosion at the Pentagon caused not by a plane hijacked by Islamic extremists but as the result of a nefarious plot by the U.S. government in which a missile or bomb attack was made to look like a plane crash.

At first I paid no attention. Nonsense. No rational person could believe what was a self-evidently false account. But then in the spring of 2002, just six months after the attack, a book on the subject became a huge bestseller in France. It was entitled 11 Septembre 2001: L'Effroyable Imposture (The Horrifying Fraud) [later published in the U.S. as 9/11: The Big Lie] by Thierry Meyssan, who was among the first to make the case that the Pentagon explosion was caused not by a plane but by a

15

¹⁶ Thierry Meyssan, *11 Septembre 2001 : L'Effroyable Imposture* (Paris: Carnot Editions, 2003).

missile. ¹⁷ The New York Times, in a story a few months later, called the book's line of reasoning "a case study in how a conspiracy theory can be built around contradictions in official statements, unnamed 'experts' and 'professional pilots,' unverified published facts, references to past United States policy in Cuba and Afghanistan, use of technical information, 'revelations' about secret oil-industry maneuvers and, above all, rhetorical questions intended to sow doubts." ¹⁸ Though Meyssan was roundly criticized by many in France, his book nevertheless sold 200,000 copies according to CNN. ¹⁹

Then came an Internet documentary, *Loose Change*, which also purported to debunk the official version of 9/11, and did it in an eerily persuasive way.²⁰ I watched it. I had to admit it was a convincing bit of agitprop. If I did not have the benefit of firsthand knowledge of what actually happened, it would have raised in my mind serious doubts about the official account. After all, there I was in the documentary – a credible reporter from a mainstream media outlet on the scene saying there was "no evidence of a plane hitting anywhere near the Pentagon" – along with another eyewitness (whom I had interviewed on CNN) saying it looked like a cruise missile hitting the building. To this day if one does an Internet search for "Jamie McIntyre"

¹⁷ Alan Riding, "Sept. 11 as Right-Wing U.S. Plot: Conspiracy Theory Sells in France," *New York Times*, June 22, 2002.

 $http://www.nytimes.com/2002/06/22/world/sept-11-as-right-wing-us-plot-conspiracy-theory-sells-in-france. \\ html$

¹⁸ Ibid.

¹⁹ Jim Bittermann, "French buy into 9/11 conspiracy," *CNN.com*, June 26, 2002. http://edition.cnn.com/2002/WORLD/europe/06/26/france.book/

²⁰ *Loose Change*, (2005, 2006, 2007, 2009) written and directed by Dylan Avery, produced by Korey Rowe, Matthew Brown, and Jason Bermas and distributed by MercuryMedia International and Microcinema International.

and "9/11," the first clip to pop up is me seeming to deny a plane hit the Pentagon along with various statements supporting the contention that the crash scene was inconsistent with the crash of a 757 jetliner.

Of course, what I knew is that both of these statements were egregiously taken out of context. I also knew a plane had indeed hit the building. All evidence supported that and none suggested otherwise. In fact, a longer clip of that very same report, which is also still accessible on YouTube, shows me describing the pieces of the plane wreckage I saw and photographed:

"I could see parts of the airplane that crashed into the building, very small pieces of the plane on the heliport outside the building. The biggest piece I saw was about three feet long. It was silver and had been painted green and red, but I could not see any identifying markings on the plane. I also saw a large piece of shattered glass that appeared to be a cockpit windshield, or other window from the plane." 21

The video record also shows that when I said no plane crashed *near* the Pentagon, I was answering a question from CNN anchor Judy Woodruff, clarifying an earlier suggestion that perhaps the plane may have actually crashed nearby, short of the Pentagon.

²¹ CNN, September 11, 2001. From author's personal tape archives, also available on YouTube. https://www.youtube.com/watch?v=HuROgQYuA8Q



Figure 6 - CNN's Judy Woodruff debriefs author. Photo courtesy CNN, September 11, 2001.

WOODRUFF: Jamie, Aaron was talking earlier, er one of our correspondents was talking earlier, I think it was Bob Franken with an eyewitness who said it appeared that Boeing 757, the American jet, Airlines jet, landed short of the Pentagon. Can you give us any idea how much of the plane actually impacted the building?

McINTYRE: You know it might have appeared that way, but from my close-up inspection, there's no evidence of a plane having crashed anywhere near the Pentagon, the only site is the actual side of the building that is crashed in, and the only pieces left are small enough that you can pick up in your hand. There are no large tail sections, wing sections, a fuselage, nothing like that anywhere around, which would indicate the entire plane crashed into the side of the Pentagon, and caused the side to collapse.²²

And as for the other eyewitness – who described it as "looking like a cruise missile," his words were also grossly out of context. Here's what Mike Walter, a television reporter for *USA Today Live* told me about what he saw in a CNN interview that day:

²² CNN, September 11, 2001. From author's personal tape archives. Also available on YouTube. https://www.youtube.com/watch?v=HuROgQYuA8Q

I was heading in on northbound on 27 and the traffic this morning it was you know a typical rush hour, it was, it had ground to a standstill. And I looked off, I was you know looked out my window, and saw this plane, a jet, American Airlines jet coming, and I thought uh, this doesn't add up, it's really low, and I saw it, it just went, *I mean it was like a, a cruise missile, with wings went right there, and slammed right into the Pentagon*. A huge explosion, a great ball of fire, smoke started billowing out and it was uh just chaos on the highway...²³

And here's what made it into the Loose Change documentary: "I mean it was like a, a cruise missile, with wings went right there, and slammed right into the Pentagon."

Now one might reasonably think that if the context of both of those remarks were explained, if people who thought an eyewitness saw a cruise missile, found out he actually saw an American Airlines jet, they would re-evaluate their conclusion, and perhaps lean more toward a plane than a missile.

But *Loose Change* is an example of the ability of content on the Internet to morph to stay ahead of fact-checkers and debunkers. As soon as crowdsourcing pointed out some of the obvious deceptions in the editing and presentation of the interviews, the *Loose Change* documentary crew came out with a new, revised version that dropped some of the more blatant distortions and replaced them with more subtle insinuations. Hence Mike Walter's "cruise missile" description, which clearly refers to the airliner flying like a cruise missile, is dropped from subsequent versions. *Loose Change* went through at least four major revisions between 2002 and 2009, and the latest version is proclaimed to be "all new" for 2014.²⁴

19

²³ CNN, September 11, 2001, From author's personal archives.

²⁴ Dylan Avery, "Loose Change," *YouTube* 2014 https://www.voutube.com/watch?v=YsRm8M-qOiO

One essential element of a "conspiracy theory" is that it often relies on the premise that a large number of people, usually people in authority, are knowingly lying. In the case of the attack on the Pentagon, this would mean hundreds of people in the U.S. government would have to be involved in the planning and execution of the deception, and thousands more people would have to lie or keep silent about what they know, including the victims' families, emergency response personnel, pilots, and flight crews.

What conspiracy theorists such as Dylan Avery, the producer of *Loose*Change, often do is focus on planting doubt about several specific pieces of evidence, which in themselves may be inconclusive, or even inconsequential, while ignoring much more significant evidence that is uncontested and irrefutable. To succeed, conspiracy theorists don't have to explain away the strong evidence. They just have to be able to exploit the inconstancies in weaker evidence enough to create doubt, not a reasonable doubt, but any doubt. For instance *Loose Change* does not answer or even address a central flaw in the missile or bomb theory, namely: "If a missile hit the Pentagon, what happened to American Airlines Flight 77, which took off from Dulles Airport with real people on board and never came back? Where is that plane?" The conspiracy proponents never have to explain how so many people could be complicit in keeping such a dark secret.

The technique of ignoring the big picture and focusing on insignificant inconsistencies is lampooned cleverly in a parody of *Loose Change*, called *Luke's Change*, which purports to show that the fictional Luke Skywalker of the first *Star Wars* motion picture could not have destroyed the Death Star in the manner depicted

in the movie.²⁵ The argument parallels, and in the process pillories, one basic line of faulty logic used to argue against the attack on the Pentagon.

In *Star Wars*, a fictional fantasy, rebel warrior Luke Skywalker, "in a galaxy long ago and far, far away," destroys the Imperial Death Star with an improbable shot in the precise "sweet spot" that will bring about the demise of the space station. *Luke's Chan*ge argues – somewhat tongue-in-cheek – that, in theory, this is not possible, employing the same logic of 9/11 truthers who argue that something which demonstrably did happen could not have, because in theory it is highly improbable, or as they argue, impossible.

This is one of the central arguments of those who say a plane could not have been flown into the Pentagon, namely that the hijacker at the controls of the American Airlines Flight 77, Hani Hanjour, did not have the skill to fly the jetliner along the path it took, and furthermore that the plane itself, a Boeing 757, would not be capable of such a high-speed, low altitude flight. In other words, what actually happened *in reality* couldn't have happened because *in theory* it was impossible, at least according to some experts. If we were arguing a hypothetical, then the argument, with its reliance on aviation science and flight dynamics that are beyond the comprehension of a layman, might sound convincing. But however persuasive the *theory* might be, it is trumped unequivocally by what happened *in reality*. As the saying goes, "When the map doesn't match the terrain, you go with the terrain." It is no longer debatable whether poorly-trained pilots could steer a 757 into the Pentagon at ground level, once it is established through irrefutable physical evidence they did.

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²⁵ Graham Putnam, *Luke's Change: an Inside Job*, 2013. http://vimeo.com/61930750

All available evidence points that way, and no evidence refutes it. This is a prime example of a main reason why people harbor false beliefs: very convincing arguments can be made for things that aren't true.

The "couldn't happen in theory" argument was the central underpinning for a 2010 episode of the television series "Conspiracy Theory, with Jesse Ventura" which aired on the TruTV cable network (formally Court TV) and focused on what the program's anonymous deep-voiced narrator called, "the 9/11 conspiracy that was lost in the smoke from the Trade Towers: the attack on the Pentagon."

The *Conspiracy Theory* segment is more polished, with much higher production values than its predecessor *Loose Change*. But it covers much of the same ground, and it features the credibility of Jesse Ventura, former Minnesota governor, Navy SEAL, professional wrestler, and author of a book purporting to disprove the Warren Commission's conclusions about the assassination of President John F. Kennedy. The program also features a supporting cast of seemingly open-minded co-investigators who initially dismiss the "conspiracy theories" as unbelievable. Their apparent conversion from skeptics to believers is one of the techniques used to bring the audience around to accept the alternate, and ultimately false narrative.

While the program comes to many dubious conclusions, the main argument can be boiled down to one expert who concludes the crash site is inconsistent with what he thinks it should look like, and another expert who cannot easily duplicate the

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²⁶ Jesse Ventura, Dick Russell, David Wayne, *They Killed Our President: 63 Reasons To Believe There Was A Conspiracy To Assassinate JFK* (New York: Skyhorse Publishing, 2013).

plane's precise flight path on a 757 flight simulator. Again with theory up against reality, reality comes in second.

Amazingly, while concluding that the official account of the September 11 attack is wrong and that the members of the 9/11 commission were duped, the program ends with no plausible alternate explanation for what happened. It suggests the plane did fly toward the Pentagon and then flew over the building, instead of into it, leaving the fate of the plane and its passengers and crew "up in the air," so to speak.

I have cited three of the most prominent examples of thinking people perpetuating the myth that the attack on the Pentagon did not happen the way the mainstream media reported it. The examples cited were a book, an Internet video, and a cable television show. But the real heavy lifting in keeping the false accounts thriving is done by the hundreds if not thousands of websites dedicated to questioning and maintaining doubts about the reality of September 11. A Google search for "9/11 Truth" turns up millions of hits. The top hits are almost all sites that dispute the veracity of the 9/11 commission findings, including www911truth.org, Architects and Engineers for 9/11 Truth, Pilots for 9/11 truth, Scholars for 9/11 truth, and 9/11 Truth News.

Visit any one of these sites and you can find fresh comments that show how many people are still taken in by the specious arguments perpetuated by the misinformation and disinformation more than a decade after the fact.²⁷

It is hard to dismiss the sites as idle mischief, or as the misguided efforts of a few marginal actors, when so much time, money and effort has gone into – and continues to go into – perpetuating them. One example cited by *Popular Mechanics* is the website reopen911.org.

Reopen911.org is bankrolled by Jimmy Walter, heir to a Florida-based home-building fortune. In the December 7, 2005, edition of the *Tampa Tribune*, Walter claimed that he had spent \$6 million trying to prove that the 9/11 attacks were actually part of a massive conspiracy. Walter's campaign to question the findings of the 9/11 commission has included spot ads on cable networks (CNN, ESPN and Fox News), as well as full page ads in the *New York Times, Washington Post* and *Newsweek*. In an open letter on his reopen911 Web site, Walter says "It seems clear to me that someone executed a master of deception's plan and killed thousands of innocent people. Osama and Bush may just be patsies."

Another site called the Global Research Center features a five-hour long documentary that is billed as "a high-quality carefully-documented film that dramatically shows the official story about 9/11 to be a fabrication through and

²⁷ Zogby Special Feature, "A Word About Our Poll Of American Thinking Toward The 9/11 Terrorist Attacks," May 24, 2006. The Zogby poll found that 42 percent of Americans now believe that the U.S. government and the 9/11 commission "concealed or refused to investigate critical evidence that contradicts their official explanation of the September 11 attacks," and that "there has been a cover-up."

explanation of the September 11 attacks," and that "there has been a cover-up." http://web.archive.org/web/20101119164520/http://www.zogby.com/features/features.cfm?ID=231

²⁸ Dunbar and Reagan, *Debunking 9/11* Myths, 66.

through."²⁹ That's right, someone produced five hours of video on three DVDs. This is not the work of a dilettante.

To say that the number of websites questioning the basic facts of the September 11 attack is incalculable is to state the obvious. And the ubiquity and open access of the Internet has transformed what might have been a tiny fringe movement a couple of decades ago into a worldwide community of like-minded cynics.

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²⁹ Global Research, October 18, 2013, http://www.globalresearch.ca/the-unspoken-truth-on-911-september-11-the-new-pearl-harbor/5354760

Chapter 3: Correcting the Record and Resistance to Evidence

When the first September 11 conspiracy theories began to propagate, I thought they were embraced by a very small fringe element of "crazies." I assumed they would soon be a minor footnote to the story, such as skeptics who do not believe U.S. astronauts really walked on the moon. I also naïvely thought that any reasonable, thinking person could easily be convinced that so-called questions surrounding the attack on the Pentagon could be resolved with the undisputed facts at hand.

My first inkling that this might not be the case was when I got a call from a journalist in France asking about my assessment of Thierry Meyssan's allegations in *L'Effroyable Imposture*. After about 10 minutes on the phone, I realized that my explanation that I was at the crash site and saw and photographed parts of the plane was having no effect, and I was in fact having a discussion with a doubter, whose mind was made up. I remember ending the conversation with something I had heard years before. "It's good to have an open mind about these things," I said, "but if your mind is too open your brain can fall out. That's what I think has happened to these folks who don't believe it was a plane." And when I asked him about what I considered the major flaw in the missile theory: "If it didn't hit the Pentagon, what happened to American Airlines flight 77 and all on board?" the journalist replied that he did not have to resolve every inconsistency to know that the basic story was a lie.

At that point I began to wonder how smart people could believe such nonsense.

One factor that was fueling suspicions about the Pentagon was the lack of any photographic evidence, unlike the attacks in New York, where there was dramatic video of the planes flying into the World Trade Center towers. I began making a full-court press with my Pentagon sources to find out if there was any video, and to get my hands on it. I had two promising leads. One source told me there was imagery from a security camera. Another source told me a security camera at the nearby Doubletree hotel in Pentagon City had also captured the attack. The Doubletree lead turned out to be true, but unhelpful. The FBI had confiscated the video, and although I talked to one of the hotel employees who watched it, he could not recall what it showed. Years later, in 2006, I would obtain the full video, in response to a FOIA request, and it showed the smoke from the fireball, but not the plane, which was flying so low it was blocked by the Pentagon building.

But on September 11, at least one Pentagon security camera, I was told, did capture the plane as it hit. I pleaded with various Pentagon officials to release the video, using the now growing conspiracy theories as a basis for my argument for making it public as soon as possible. If they would release the video, I reasoned, it might put to rest some of the irresponsible, and frankly infuriating, allegations of "inside job" and "cover-up."

The appeal went to the highest levels of the Pentagon, and the answer was "no." The Justice Department said the video would be evidence in the upcoming trial of al Qaeda conspirator Zacarias Moussaoui and therefore could not be released. ³⁰ I thought the decision to withhold the video was a public relations mistake, as did a

³⁰ Moussaoui was a French citizen arrested in the U.S. in connection with the 9/11 attacks. He would plead guilty in 2006.

senior aide to Defense Secretary Donald Rumsfeld. That Pentagon official arranged to have a CD-ROM of the images leaked to me at my Pentagon office several hours later, and I immediately put them on the air. I thereby became the first reporter to publish the images, although the Associated Press was provided with the same pictures within an hour of when I showed them on CNN. While images became widely available and circulated on the Internet, they were not officially released for four more years.



Figure 7 - Security camera images first obtained and broadcast by CNN, March 7, 2002.

If I thought the photographic evidence would quell the debate I was quickly proved wrong. Blog sites seized on the low-resolution images as evidence it was NOT a plane, but that the white blurry shape looked to them more like a missile. And while it is true that if what hit the building was in fact a mystery, the images alone would be inconclusive. But that was the frustrating thing. The pictures were not an isolated piece of evidence. They were just one more link in a solid chain of evidence that was consistent and conclusive.

I would return to the subject many times over the years I was at CNN. At one point I contacted a forensic crime scene animator, Michael Wilson, who helped me

show graphically how all the evidence fit and was consistent with a plane hitting the Pentagon.³¹

When I left CNN I wrote an entry on my blog, *LineofDeparture.com*, again giving my eyewitness account, laying out all the evidence, and posting the photographs I took at the scene in an attempt to debunk the myths that were now so linked to my September 11 reporting.³²

Some of the comments I received:

"The pictures posted have no significance. They only further reinforce the fact that no Boeing Plane hit the Pentagon. That is a sick and futile effort to enforce an unenforceable lie. Barbara Olson is alive and well. The phone calls were Phony calls. That was proven using an unusual approach by implementing common sense. False Flag attack, pure and simple and the coverup was so obvious only a fool would believe otherwise and only a shill or disinfoagent would attempt to defend the obvious lie." Jean

"A few photographs are just that — photographs. They become evidence of Flight 77 when backed up by forensic evidence that they came from Flight 77 — some of the parts would have serial numbers that could be matched to the logs. Then there's contradictory evidence I lay out in my September 11, 2010 article "Pentagon Transcripts, Official Records Belie "The 9/11 Commission Report'." I challenge you to a debate." Enver Masud

I did in fact try engaging directly with some of the more thoughtful doubters, spending in some cases hours talking with them, attempting to use logic to explain why their theories did not fit the facts. But the facts did not seem to matter.

As an experiment, I decided to agree to be interviewed by a 9/11 truther whom I met at a conference, Victor Thorn. He was an affable, pleasant person, who

³² McIntyre, "The Immortal 9/11 Conspiracy," 2010. lineofdeparturearchives.blogspot.com.

³¹ Jamie McIntyre, "Sept. 11 Mythbusting," *CNN*, 2006. https://www.youtube.com/watch?v=Fj5EdSv3vvg&list=UUItf410lWgXCkMDzAY1 UJBA

seemed genuinely confused about whether a plane hit the Pentagon. So I agreed to talk to him by phone. I recorded the conversation for my records, with his permission. I explained how my comments about "no evidence of a plane" were taken out of context. I shared the pictures I took of the wreckage. I tried to convince him that no theory or other evidence provided any creditable alternative explanation.

Thorn subsequently published his article on a website called American Free Press.³³ When his article was posted, I found that it trotted out the same old canard about me reporting "no evidence of a plane," and then said I had later objected "as possible damage control" that my comments were taken out of context. Thorn then added, ominously "But were they?"³⁴

The rest of the article was an indictment of my failure to follow all the false leads that are the focus of the Pentagon 9/11 conspiracy theorists. Why, he wanted to know, had I not interviewed any structural engineers to determine why the plane's five-ton engines didn't create any holes? Why had I not interviewed pilots to get their opinion about whether Hani Hanjour could have flown the Boeing 757? Why did I not pursue the theory that documented cell phones calls were impossible, given the technology of the time.

He characterized my dismissal of those lines of inquiry as "immaterial." But in fairness he did sum up my hour-long discussion with this one paragraph, which is accurate, as far as it goes:

³³ AmericanFreePress.net.

³⁴ Victor Thorn, "Victor Thorn Interviews Former CNN Reporter Who Was First on Scene at Pentagon on 9/11," *AmericanFreePress.net*, November 9, 2010. http://www.americanfreepress.net/html/former cnn reporter 243.html

He justified this lack of intellectual and journalistic curiosity with the following mantras: (a) All evidence points in only one direction, (b) There are no plausible alternatives, (c) These aren't relevant lines of questioning, and (d) All this might make sense if we didn't know whether American Airlines Flight 77 hit the Pentagon. But we do know that for a fact, so all this other debate and analysis is irrelevant.

Thorn's conclusion: "Unfortunately, McIntyre still does not realize that this type of lazy elitist arrogance is why a growing number of Americans don't trust the corporate media."

Once again, I had failed. Another mind not changed. I began to wonder if anything could change the mind of a true disbeliever.

A much more concerted and comprehensive attempt to correct the record and counter the false beliefs about the September 11 attacks was launched by the editors of *Popular Mechanics*. In 2006, the magazine editors published a book, *Debunking 9/11 Myths*, which reported that they analyzed and definitively disproved the 20 most prominent conspiracy claims including that a missile from a military jet, not a Boeing 757, struck the Pentagon.³⁵

The authors said they "consulted more than 300 experts and sources in such fields as air traffic control, aviation, civil engineering, fire fighting and metallurgy." They said their conclusions were based on "hard facts and irrefutable evidence, including photographs, transcripts, scientific studies, expert testimony, and other documentation."

In a chapter on the Pentagon, the editors addressed the question about debris, the size of the hole in the Pentagon, and quoted other witnesses on the scene. One

³⁵ David Dunbar and Brad Reagan, *Debunking 9/11 Myths, Why Conspiracy Theories Can't Stand Up To The Facts* (New York: Hearst, 2006).

was first responder, Allyn Kilsheimer, who said he held in his hand part of the tail section of the plane and saw the black box as well as uniforms from crew members and body parts. ³⁶

The authors had high hopes that by deploying facts and irrefutable evidence, the conspiracy theories would fade away.

In an endorsement for the book, Michael Shermer, publisher of *Skeptic Magazine* wrote:

Even though I study weird beliefs for a living, I never imagined that the 9/11 conspiracy theories that cropped up shortly after that tragic event would ever get cultural traction in America, but here we are with a plethora of conspiracies and no end in sight. What we need is a solid work of straightforward debunking, and now we have it in *Debunking 9/11 Myths*. The *Popular Mechanics* article upon which the book is based was one of the finest works of investigative journalism and skeptical analysis that I have ever encountered, and the book-length treatment of this codswallop will stop the conspiracy theorists in their fantasy-prone tracks. A brilliant exemplar of critical thinking. ³⁷

And so it might have been expected that the age of September 11 conspiracy theories would come to a crashing end under the weight of indisputable facts and evidence. But it did not.

It turns out skeptic Michael Shermer should have been a bit more skeptical of his own predictions. Instead of stopping the conspiracy theorists "in their fantasy-prone tracks," the 9/11 "truthers" piled more coal into the locomotive of faulty logic and took off like a runaway freight train.

³⁶ Dunbar and Reagan, *Debunking 9/11 Myths*, 65.

³⁷ Ibid, inside front cover.

Enter: Debunking 9/11 Debunking: An Answer to Popular Mechanics and Other Defenders of the Official Conspiracy Theory. The new book, which is twice as thick as the Popular Mechanics tome, vigorously disputes almost every aspect of the Popular Mechanics investigation, turning the tables by labeling the widely-accepted and government reported version of events, "the official conspiracy theory." That's right, the editors of Popular Mechanics, along with a majority of Americans stood accused of being the "true believers," essentially official conspiracists who themselves are blind to facts and impervious to logic.

The book is impressive in its attention to detail and careful in its presentation of facts. Take, for example, my infamous "no evidence of a plane" description.

Popular Science explains that away by saying "very little wreckage was visible from McIntyre's vantage point," glossing over entirely the essential missing context, namely that's not actually what I was saying. 39

By contrast, none of the nuance was lost on the *Debunking 9/11 Debunking* author David Ray Griffin, who points out, quite correctly, I was "not, to be sure, denying a plane struck the Pentagon." In fact he said my statement "supported the official view." He accused *Popular Mechanics* of assuming incorrectly that I was too far away to see anything.

"This interpretation, however, is based on the false assumption that

McIntyre's 'vantage point' was the media area in front of the Citgo gas station, from

³⁸ David Ray Griffin, *Debunking 9/11 Debunking: An Answer to Popular Mechanic and Other Defenders of the Official Conspiracy Theory* (New York: Olive Branch Press, 2007).

³⁹ Dunbar and Reagan, *Debunking 9/11 Debunking*, 97.

which the interview was taped. He in reality was talking about his 'close-up' inspection of the area around the strike zone."⁴⁰

Yes, thank you. That's right, except for the reference to a "taped" interview. It was in fact a live report, although the immortalized recording of it is now an Internet video. And while accurately presenting my words, Griffin then went on to use my description of "small pieces of wreckage" to support the notion that the Pentagon scene was not consistent with a 757 crash. And therefore, he effectively turns my testimony into evidence for his side.

Again, it is not my intent to belabor the point of the misuse of my words or reargue the case for the "official conspiracy theory." Rather, I note that the result of *Popular Mechanics* 'laudable journalistic effort to disprove what it called "the fantasies of 9/11 conspiracists" was not gratitude or contrition, but even more certitude that all their sophisticated fact-checking was wrong:

In his conclusion, David Ray Griffin writes:

PM (*Popular Mechanics*) has not presented convincing evidence the Pentagon was struck by flight 77, or even a Boeing 757. It has not answered the objections to this claim based on insufficient fire, impact damage, and debris. It has not provided a plausible explanation for the hole in the C-ring. It has not shown why we should not find suspicious the FBI's destruction of evidence and refusal to release videos. It has not mentioned the reasons to doubt Hani Hanjour piloted a 757 into Wedge 1... It is hard to imagine how PM's attempt in this chapter – to debunk the claim the Pentagon strike was an inside job – could have failed more thoroughly.⁴¹

⁴⁰ David Ray Griffin, *Debunking 9/11 Debunking*, 269.

⁴¹ Ibid. 288.

At this point it might well seem that rational people would be justified in throwing up their hands and declaring the battle to correct the record a hopeless cause.

Can that be the final answer, that many otherwise intelligent people are simply entitled to their wacky beliefs, and we should stop trying to inform them against their will?

Here's how Senator John McCain answered that question in the forward he wrote to *Debunking 9/11 Myths*:

The conspiracy theorists chase any bit of information, no matter how flimsy, and use it to fit their preordained conclusions. They ascribe to the government, or to some secretive group, powers wholly out of proportion to what evidence suggests. And they ignore the facts that present in plain sight. We cannot let these tales go unanswered. 42

McCain calls the false narratives "a distraction from the proper lessons of 9/11," which he says "shakes Americans' faith in their government at a time when that faith is already at an all-time low."

McCain and many others call for the unfounded accusations surrounding the September 11 attacks to be confronted with facts. But as I discovered, facts alone are not enough to persuade people with firm convictions. And the reasons get to the heart of the challenge of debunking any myth, namely, as cartoonist Walt Kelly famously put it: "We have met the enemy... and he is us."

⁴² Dunbar and Reagan, *Debunking 9/11 Myths*, xiv-xv.

⁴³ Walt Kelly, *The Pogo Papers*, (New York: Simon and Shuster, June 1953).

Chapter 4: Elements of Self-Delusion

So when someone doesn't believe something you hold to be indisputably true, you tend to think of several possibilities. One is that people holding the different beliefs may not have all the facts. Or you may think they are not smart enough to draw the correct conclusion from the facts. Or you may think they are in denial, that they simply don't want to admit the truth, because of some vested interest or political agenda.

But my experience with unsuccessfully trying to "convert" 9/11 truthers suggested to me it might be more complicated than that. I began to search out research into why smart people believe illogical things.

It turns out there is a lot of scientific study of this question, especially in the area of "heuristics," cognitive rules-of-thumb that are ingrained in our brains to help us make everyday decisions without having to overthink every problem.

Science writer Wray Herbert, whose book *On Second Thought* is about overcoming our natural heuristics to make smarter, better judgments, says heuristics are normally helpful, indeed critical to getting through the myriad decisions to be made every day. "Heuristics are amazing time savers, which makes them essential to our busy lives," he writes. "We don't want to deliberate every minor choice we make every day, and we don't need to." But, he adds, "there are always risks when we stop deliberating."

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⁴⁴ Wray Herbert, *On Second Thought, Outsmarting Your Mind's Hard Wired Habits*, (New York: Crown, 2010), 5.

Heuristics, handy though they are, are also imperfect and often irrational.

They can sometimes replace dispassionate clear-eyed analysis. We tend to rely on our instincts, "trust our gut." That works fairly well for most decisions we make in the course of our daily lives, but it can also lead to an element of self-delusion.

One way the gut overrides the brain is by substituting "believability" for careful fact-weighing. If it sounds right, it is more likely to be accepted than if it actually is right but doesn't ring true. In fact, one study of the persuasiveness of fiction and non-fiction literature found that believability is not so much connected to the factual nature of a story, but rather to the extent it aligns with the reader's general worldview

Researchers Melanie Green and John Donahue, psychologists at the University of North Carolina, cited the research in their paper, "The Persistence Of Belief Change In The Face Of Deception." They cite prior research that "individuals often respond to stories on the basis of their plausibility rather than their truth status, so if a story presents convincing characters or situations, individuals may not care as much about whether the events actually took place." ⁴⁵

Building on that previous research, Green and Donahue conducted an experiment in which they gave subjects an updated and condensed version of the story, "Jimmy's World," Janet Cooke's Pulitzer-prizing winning but fabricated account of an eight-year-old heroin addict named Jimmy, and his mother who worked as a prostitute in order to support her own heroin addiction.

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⁴⁵ Melanie Green, and John K. Donahue, "Persistence of Belief Change in the Face of Deception: The Effect of Factual Stories Revealed to Be False," *Media Psychology* 2011, no. 3: 312-331.

When the subjects learned that the primary character of the story was not real, it did not change their opinion about the overall accuracy of the story. The author's conclusion:

The present research suggests that belief change from a story can remain unaltered even if the source of the persuasion has accidentally or intentionally misled the recipient of the persuasive message. The derogation of a lying source does not extend to correction of story-based beliefs. Similarly, evaluations of the characters in a story can remain unaltered even in the face of an author's deception. The ... results provide suggestive evidence that individuals attempt to correct for false information, but that they do not do so effectively. 46

I found this result particularly interesting in light of my own personal experience. In the documentary, *Loose Change*, and in many other forums, my words had been deliberately edited in a way to create a false impression that I was reporting there was no evidence a plane hit the Pentagon. I thought that when I provided corrective information to document the deception to people who saw it and believed it their beliefs would change. I was surprised when my explanation had no effect, just as in Green and Donahue's experiment. They explained it this way, again citing previous research:

Research on belief perseverance ... suggests that when individuals have created a causal structure to support their beliefs, they retain those beliefs even if they are informed that the initial information was incorrect. Indeed, comprehending information often leads to automatic belief in that information, which then requires motivation and ability to correct.

Participants clearly recognized the manipulation, as shown by their lower ratings of the author and their identification of more false notes, but this recognition did not extend to belief correction.⁴⁷

⁴⁶ Green, and Donahue, "Persistence of Belief Change in the Face of Deception," 2011, 324.

⁴⁷ Ibid

This may suggest a "heuristic effect," in that the subjects felt the story "rang true" even if a key fact was wrong. Their gut told them the story was plausible, and it likely fit with their previously held beliefs and stereotypes about lifestyles of inner city poor.

Stereotyping is one common type of heuristic that people employ unconsciously to make snap judgments. That person looks dangerous. Politicians lie. The news media are biased. Those kinds of stereotypes, true as they may be at times, can color our thinking in ways that are often invisible to us and, as we've seen, once a snap judgment is made it is not easily changed.

In his 2014 book *Kidding Ourselves*, Pulitzer prize-winning journalist Joseph Hallinan argues, "false beliefs can be remarkably hardy," taking on a life of their own, "wandering the landscape like zombies we just can't kill."

... consider some of the perceptions surrounding the current U.S. president Barack Obama. Tens of millions of Americans believe that the president of the United States isn't even a citizen of the United States. In 2010, some two years after Obama released a copy of his official birth certificate from the state of Hawaii, a CNN Opinion Research Poll found more than a quarter of the public had doubts about his citizenship. Even after Obama released the so-called long-form of his birth certificate, substantial numbers of voters *still* weren't convinced."

⁴⁹ Joseph Hallinan, *Kidding Ourselves: The Hidden Power of Self-Deception* (New York: Penguin Random House, 2014), 97.

⁴⁸ "CNN Poll: Quarter doubt Obama was born in U.S.," *CNN.com*, August 4, 2010. http://politicalticker.blogs.cnn.com/2010/08/04/cnn-poll-quarter-doubt-president-was-born-in-u-s/

Again, this is another case where what would appear to be definitive corrective factual information had almost no effect, at least not initially. So as Hallinan writes, "If facts don't change minds, what does?" ⁵⁰

It turns out quite a few researchers have studied this question, as well as an interesting related phenomenon, the so-called "backfire effect," wherein people presented with more facts actually become more entrenched in their false beliefs and misperceptions." *Popular Science's Debunking 9/11 Myths* would seem to be a prima facie example of the backfire effect, having provoked a counter book that fought back twice as hard.

Hallinan cites the work of two academics, Brendan Nyhan of Dartmouth and Jason Reifler of Georgia State, who conducted an experiment using actual news articles followed by corrections. They wanted to find out whether the corrections had the desired effect on people with strong partisan beliefs. The researchers found precisely the opposite, namely that correcting the record not only doesn't help, it can sometimes hurt – making people even more certain they are right, even when they are not.

The experiments documented another important reason why factual misperceptions about politics are so persistent: the subjects' ideological and political views of the topics. "As a result," they write, "the corrections fail to reduce misperceptions for the most committed participants. Even worse, they actually strengthen misperceptions among ideological subgroups in several cases." 51

⁵⁰ Hallinan, *Kidding Ourselves*, 103.

⁵¹ Brendan Nyhan and Jason Reifler, "When Corrections Fail: The Persistence of Political Misperceptions," *Political Behavior*, 2010 (2): 303-330.

The authors draw a distinction between citizens who are uninformed and those who are misinformed, that is citizens who base their policy preferences on false, misleading, or unsubstantiated information that they believe to be true, which is often directly related to political preferences.

Nyhan and Reifler cite research that shows after the U.S. invasion of Iraq in 2003, the belief that Iraq had weapons of mass destruction before the invasion was closely associated with support for President Bush. In reviewing the corrective effect of providing relevant facts to people holding misperceptions, the research indicated that subjects were receptive to what was termed "authoritative statements of fact, such as those provided by a survey interviewer to a subject."

However, such authoritative statements of fact ... are not reflective of how citizens typically receive information. Instead, people typically receive corrective information within "objective" news reports pitting two sides of an argument against each other, which is significantly more ambiguous than receiving a correct answer from an omniscient source. In such cases, citizens are likely to resist or reject arguments and evidence contradicting their opinions—a view that is consistent with a wide array of research. ⁵²

In his book, *You Are Now Less Dumb*, journalist David McRaney describes a result similar to my own experience with 9/11 truthers when he sums up his experience attempting to debunk myth with fact on the Internet. McRaney puts his finger on the maddeningly frustrating aspect of the backfire effect, namely that any debate merely convinces both sides they are even more right.

What should be evident from the studies on the backfire effect is you can never win an argument online. When you start to pull out facts and figures, hyperlinks and quotes, you are actually making your opponent feel even surer

⁵² Nylan, Reifler 303-330.

of his position than before you started the debate. As he matches your fervor, the same thing happens in your skull. The backfire effect pushes both of you deeper into you original beliefs.⁵³

When people are not open to objective evidence that would contradict their current beliefs, they are exhibiting what author Rolf Dobelli calls "the mother of all misconceptions," namely confirmation bias. ⁵⁴ He defines this as "the tendency to interpret new information so that it becomes compatible with our existing theories, beliefs, and convictions. In other words we filter out any new information that contradicts our existing views."

The irony of confirmation bias is that both sides in the 9/11 conspiracy battle accuse the other of this classic thinking error. After my interview with 9/11 truther Victor Thorn, his criticism of me centered almost entirely on his argument that, in having accepted the official version of what happened, I never actively searched for "disconfirming" evidence. He was effectively charging me with "confirmation bias," that having accepted the official story, I no longer searched for other explanations. My counter argument was that once a fact is established beyond any doubt, the search for disconfirming evidence becomes a fool's errand. Once we have determined the Earth is round, there really is no need to search for disconfirming evidence of its possible flatness. But in the case of 9/11 truthers, we can't yet agree the world is round.

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⁵³ David McRaney, You Are Now Less Dumb (New York: Gotham, 2013),149.

⁵⁴ Rolf Dobelli, *The Art of Thinking Clearly* (HarperCollins, 2013), 19.

An interesting new study by a Yale Law School professor, Dan Kahan, tackles a question a different way. 55 Kahan wanted to figure out whether lack of understanding was the reason large segments of the population, particularly those with firm religious views, reject some questions of settled science such as climate change and human evolution. 56

If, for instance, people who were simply unaware of the strength of the evidence for climate change or evolution or didn't understand the science behind it, they could, in theory, be provided with the correct information, and then might be convinced of the scientific consensus. But Kahan found there was no significant difference between more religious or less religious people when it came to understanding the basic science – subjects were simply unwilling to endorse the consensus when it conflicted with their religious or political views.

That suggests the problem is not so much a lack of accurate information, or scientific illiteracy, but rather an aversion to endorse a belief that runs counter to a sense of identity. In other words, we have a strong emotional attachment to our beliefs because we believe they say something important about whom we are. This is one of the factors that makes debunking false beliefs so problematic. For 9/11 truthers to concede their cause was misguided and mistaken would seriously diminish their

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⁵⁵ Dan M. Kahan, Climate Science Communication and the Measurement Problem (June 25, 2014). Advances Pol. Psych. (forthcoming). Available at SSRN: http://ssrn.com/abstract=

⁵⁶ "Public's Views on Human Evolution," *PewForum.org*, December 30, 2013. http://www.pewforum.org/2013/12/30/publics-views-on-human-evolution. The Pew Research Center found that 33 percent of the public believes "Humans and other living things have existed in their present form since the beginning of time" and 26 percent think there is not "solid evidence that the average temperature on Earth has been getting warmer over the past few decades."

self-image as crusaders for truth against evil and corrupt forces in the government and the media.

Historian Richard Hofstadter identified this phenomenon in his classic 1964 Harper's magazine essay, "The Paranoid Style in American Politics:"

The paranoid spokesman sees the fate of conspiracy in apocalyptic terms—he traffics in the birth and death of whole worlds, whole political orders, whole systems of human values. He is always manning the barricades of civilization.... As a member of the avant-garde who is capable of perceiving the conspiracy before it is fully obvious to an as yet unaroused public, the paranoid is a militant leader.⁵⁷

Writing about the implications of Kahan's study in the *New York Times*, researcher Brendan Nyhan (whose own study is cited earlier) argued current findings suggest a need "to try to break the association between identity and factual beliefs on high-profile issues."

...for instance, by making clear that you can believe in human-induced climate change and still be a conservative Republican like former Representative Bob Inglis or an evangelical Christian like the climate scientist Katharine Havhoe. But we also need to reduce the incentives for elites to spread misinformation to their followers in the first place. Once people's cultural and political views get tied up in their factual beliefs, it's very difficult to undo regardless of the messaging that is used. 58

The study, as well as other research in the field, underscores another wellknown aspect of basic human nature: once we latch on to a belief, we are loath to let

Brendan Nyhan, "When Beliefs and Facts Collide," New York Times, July 5, 2014.

⁵⁷ Richard Hofstadter, "The Paranoid Style in American Politics" *Harper's* Magazine, November 1964. http://harpers.org/archive/1964/11/the-paranoid-style-in-americanpolitics/

it go. As Kathryn Schultz describes in her book, Being Wrong, the great majority of us are often mistaken, but rarely in doubt: 59

A whole of lot us go through life assuming we are basically right, basically all of the time about basically everything: about political and intellectual convictions, or religious and moral beliefs, our assessment of other people, our memories, our grasp of facts. As absurd as it sounds when we stop to think about it, our steady state seems to be one of unconsciously assuming we are very close to omniscient.⁶⁰

Schultz observes that if we envelop ourselves in a pleasantly delusional fog of certitude and regard our surefootedness as our default setting, the converse is also true. The idea that we could often be wrong seems, she writes, "as rare and bizarre an inexplicable aberration in the normal order of things." But she says both selfassessments are essentially overly optimistic delusions, writing: "Our tricky senses, our limited intellects, our fickle memories, the veil of emotions, the tug of allegiances, the complexity of the world around us: all of this conspires to ensure we get things wrong again, and again."61

History is full of examples of brilliant scientists and thinkers who, when confronted by incontrovertible evidence of their mistakes, refuse to accept or admit their errors. Mario Livio's book *Brilliant Blunders* is a case study of colossal mistakes made by five towering scientific giants of their times; Albert Einstein, Charles Darwin, physicist Lord Kelvin, chemist Linus Pauling and cosmologist Fred

⁵⁹ Kathryn Schultz, *Being Wrong, Adventures in the Margin of Error* (New York: Harper Collins, 2010) 4.

⁶⁰ Ibid. 5.

⁶¹ Ibid. 9.

Hoyle. ⁶² His focus is on how "blunders are not only inevitable, but also an essential part of science." ⁶³ But his book also shows how smart people, in this case brilliant geniuses, will hold on to false beliefs long after the weight of evidence and consensus of science has gone against them. In fact he argues they fall victim to their own intelligence and prior success, which can result in an unwarranted overconfidence.

Here's how Lord Kelvin's obstinate refusal to face facts was summed up by science writer Marcia Bartusiak, who reviewed *Brilliant Blunders* for the *Washington Post*:

William Thomson (later known as Lord Kelvin) was simply stubborn. After achieving worldwide fame for formulating the laws of thermodynamics in the mid-19th century, Kelvin went on to estimate the age of the Earth based on the time needed for a primordial molten planet to cool to its current temperature. He figured 400 million years at most. Biologists and geologists were already estimating ages far older – billions of years – but Kelvin stuck to his guns for decades, even when a former pupil matched the geological age with a better physical model of the Earth and the discovery of radioactivity introduced a new source of energy for our cooling planet. 64

The point being that once someone becomes emotionally invested in a belief, often no amount of fact, logic, and reason can persuade even the most intelligent of our species. To paraphrase an old joke, "How many facts does it take to change a person's mind? Only one, but the person has to *really* want to change."

And the primary reason for our stubborn refusal to face facts is basically that we are hard-wired not to, by our heuristics and biases. One of our biggest self-delusions, (aside from thinking ourselves basically right about basically everything) is

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⁶² Mario Livio, Brilliant Blunders From Darwin to Einstein — Colossal Mistakes by Great Scientists That Changed Our Understanding of Life and the Universe (New York: Simon & Schuster, 2013.

⁶³ Ibid, 10.

⁶⁴ Marcia Bartusiak, "'Brilliant Blunders' by Mario Livio, on scientists' breakthrough mistakes," *Washington Post*, June 6, 2013.

that we also believe we are basically rational creatures who make decisions in a logical way, weighing pros and cons, facts and counter facts, before coming to a well-reasoned judgment. But that is not how we typically make important decisions. Think about one of the biggest decisions in your life: how you chose your mate. Did you make a list of your prospective partner's good and bad points? Did you request financial data, medical reports, school transcripts, and a psychological profile? No, most likely you went with your gut. Maybe you decided it was fate that brought you together, your one soul-mate from the billions of humans on the planet. How illogical and unscientific.

If we are honest with ourselves we can admit that we are a race of magical thinkers. Setting aside the sensitive and intensely personal question of religion and its supernatural implications, many of us hold mystical or illogical beliefs. And even if we are not fully invested in them and insist we don't engage in magical thinking, our actions belie that. We check our horoscopes, as if the alignment of the stars at our birth has a bearing on our lives. Hotels are built without 13th floors. We resort to psychics to find missing children. We wear our lucky shirt to help our favorite sports team win. "It's only weird if it doesn't work," a Bud Light beer commercial intones. The ad agency that came up with the campaign says: "We know NFL fans believe that their superstitions – no matter how esoteric or nonsensical – have real-world consequences on the outcome of the game."

⁶⁵ It's Only Weird if It Doesn't Work Campaign for Bud Light. http://www.translationllc.com/iframe/?type=work&id=875

Luck? Karma? Fate? All magical concepts in which subjectivity outweighs objectivity, a cognitive bias that even the most intelligent people fall prey to. Former *Psychology Today* Editor Matthew Hutson argues that magical thinking, while illogical and sometimes outright dangerous, can actually provide benefits by offering a sense of control and meaning that makes life richer, more comprehensible and less scary. "Often the biologically modern deliberative system is powerless to restrain the ancient associative system it's built on," he writes. "It makes no difference how clever you are or how reasonable you try to be: research shows little correlation between people's level of rationality or intelligence and their susceptibility to magical thinking. I 'know' knocking on wood has no mystical power. But my instincts tell me to do it anyway, just in case, and I do."

Rolf Dobelli argues in the *Art of Thinking Clearly* that sometimes it is perfectly fine to let your intuition take over. "Thinking is tiring," he writes, "Therefore if the potential harm is small, don't rack your brains, such errors won't do lasting damage." But he says, "In situations where the possible consequences are large (i.e. important personal or business decisions) I try to be as reasonable and rational as possible."

It is important, Dobelli says, to recognize the difference between rational thinking and intuitive thinking; the latter is fraught with subconscious cognitive errors.

The failure to think clearly, or what experts call 'a cognitive error' is a systematic deviation from logic – from optimal rational reasonable thought and behavior. By "systematic' I mean these are not occasional errors, but

48

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⁶⁶ Matthew Hutson, *The 7 Laws of Magical Thinking: How Irrational Beliefs Keep Us Happy, Healthy, and Sane* (Hudson Street Press, 2012).

rather routine mistakes, barriers to logic we stumble over time and time again, repeating patterns through generations and through the centuries.⁶⁷

Among the examples of common cognitive errors cited by Dobelli are our tendencies to overestimate our knowledge, to give too much weight to anecdotes, to fear losing something more than not gaining the same thing. "The errors we make," he says, "follow the same pattern over and over again, piling up like dirty laundry."

I have a shelf of books that detail the major mistakes our brains make on a daily basis. Many cite the same anecdotes to illustrate various fallacies and flawed thinking. But I'm going to pick out a few from Dobelli's book because it is one of the most comprehensive and concise guides to all the various ways we trick ourselves. In many ways, one could argue that's what is happening with many 9/11 conspiracy theorists: they are fooling themselves into thinking nonsense makes sense. And in the process they are falling victim to many of the following basic thinking errors, outlined in *The Art of Thinking Clearly*:

Confirmation Bias – As mentioned earlier, this is the mother of all thinking errors and probably the best known and understood. We know if we only seek out and pay attention to information that supports what we already think, we're unlikely to change our minds. "Why be informed, when you can be affirmed," as the saying goes.

Social Proof – This is sometimes called the "herd instinct" or "groupthink." You think you're behaving the right way when you are doing what everyone else is doing. As Dobelli points out, this is what drives bubbles and stock market panic, as

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⁶⁷ Dobelli, *The Art of Thinking Clearly*, xvi.

well as lesser evils such as fashion, management techniques, and fad diets. As he says, "If 50 million people say something foolish, it's still foolish."

Authority Bias – Authorities these days are just not all that authoritative. Many are self-promoters who appear on cable networks because they have an inflammatory or outrageous opinion that will stoke outrage, and possibly draw viewers. From Dr. Oz to Dr. Phil, many who claim to have special expertise are simply entertainers, sporting white coats or other trappings of authority.

Clustering Illusion – We see patterns. We see faces in the clouds. We see the man in the moon. The world is one big Rorschach test. After September 11, some people thought they saw the face of Satan in the smoke billowing from one of the twin towers. 68 We see patterns where none exist. We have trouble accepting that such events are happenstance.

Overconfidence Effect – This is difference between what people know and what they think they know. Dobelli says, "We systematically overestimate our knowledge and our ability to predict on a massive scale." For instance, we all think we are above average drivers, which is impossible if you think about it. Just like the kids in Garrison Keillor's mythical Lake Wobegon, where all the children are above average.

Coincidence – Though unlikely events are inevitable, people are always amazed by coincidence. "What are the chances of that?" they ask. You get on a plane and the person seated next to you went to your same high school or has the same

⁶⁸ "Faces in the Cloud," *snopes.com*, 2001. http://www.snopes.com/rumors/wtcface.asp

birthday. Coincidence? They don't think so. But when you consider the large universe of people on planes, it is inevitable that at some point two people with the same birthday will sit next to each other. We're not good at probabilities, and we tend to impart meaning into coincidences that are in fact expected random events.

Base Rate Neglect – We often overlook the basic truth that the most obvious explanation is the most likely, and that exotic or fantastic scenarios should be considered only after the more probable scenario has been ruled out. In medical school, they teach, "When you hear hoofbeats, don't expect a zebra." That might be rephrased, "When witnesses see a plane hit the Pentagon, don't think missile."

Cognitive Dissonance – When facts show you were wrong or failed in some way, you simply reinterpret them retroactively to conclude you were right. The term "cognitive dissonance" was introduced in 1957 by Stanford psychology professor Leon Festinger. "Festinger's seminal observation: The more committed we are to a belief, the harder it is to relinquish, even in the face of overwhelming contradictory evidence. Instead of acknowledging an error in judgment and abandoning the opinion, we tend to develop a new attitude of belief that will justify retaining it." ⁶⁹

Association Bias – In his book, Dobelli quotes Mark Twain for the most trenchant example: "We should be careful to get out of experience only the wisdom that is in it – and stop there; lest we be like the cat that sits down on a hot stove-lid. She will never sit down on a hot stove lid again – and that is well; but also she will never sit down on a cold one anymore." Conspiracy theorists often rely on experts who have an "association bias."

51

⁶⁹ Robert A. Burton. M.D., *On Being Certain: Believing You Are Right Even When You Are Not*, New York (St. Martin's Press, 2008).

Intuitive Logic Traps – Quick! If a store sells a bat and ball for \$11, and the bat cost \$10 more than the ball, how much does the ball cost? Did you think \$1? That's the intuitive answer. It sounds right, but the answer is 50-cents. Thinking is harder than sensing. Sometimes things that sound right are wrong.

Affect Heuristic – This is the classic snap judgment based on emotion and how we feel about something, rather than a considered evaluation. It is the like or dislike on Facebook, an automatic impulse without time to consider the facts.

Introspection Illusion – We tend to think that introspection, thinking and reviewing our own beliefs helps to refine and increase our self-knowledge. But science suggests otherwise - that when we soul-search we fool ourselves into thinking our introspections are more reliable.

The Sleeper Effect – This is a phenomenon whereby we are initially unpersuaded by an argument, advertisement, or propaganda because of what would seem to be an obvious agenda or lack of objectivity of the source, but later we find ourselves more receptive to the message. Why? Our memory of the discredited source fades, while the message endures.

This is just a short list of the many pathways humans can take to arrive at the wrong destination and thereby remain resistant to belief modification. There are in fact many more cognitive errors that could factor into conspiratorial beliefs held by 9/11 truthers. But the research offers a reassurance of sorts, that many misperceptions, false beliefs, and myths endure – not because of evil intent or malicious efforts, but because of simple human nature, the natural way our brains are wired.

The studies on how we fool ourselves comport with my personal interactions with doubters of the plane narrative. In discussions and debates they came across as sincere and reasonable.

But not all had fooled themselves. Some were deceived by others.

Chapter 5: Elements of Deception

Media literacy is the term that has come to be applied to the ability to make sense of the multiplicity of information sources available on the Internet and elsewhere in the 21st century. It has many definitions, but most embody some form of the one agreed on by participants at the 1992 Aspen Media Literacy Leadership Institute: "Media Literacy is the ability to access, analyze, evaluate and create media in a variety of forms."

One key aspect of being media literate in the digital age is the ability to differentiate between the reasonable questioning of conventional wisdom and the irresponsible distortion of reality.

My personal experience in researching, analyzing, and attempting to debunk false narratives surrounding the September 11 attack on the Pentagon has led to my discovery of many techniques and tactics that are used to mislead. There is no single form of deception. Some inaccurate information is inadvertent and perhaps inevitable – what we might call honest mistakes – but other cases involve intentional, malicious or mischievous misrepresentation.

My examination of 9/11 truther texts and videos have led me to identify the following common forms of flawed information.

Misinformation: Unintended mistakes of commission or omission.

Disinformation: Intentional deception, knowingly misrepresenting facts to fit a flawed premise.

54

⁷⁰ "Media Literacy: A Definition and More," Center for Media Literacy, accessed Sep 18, 2014, http://www.medialit.org/media-literacy-definition-and-more.

Incomplete information: Well-meaning but sloppy reporting that leaves out key facts.

Speculation: Educated or uneducated guessing that jumps to a conclusion without enough information to draw an accurate assessment.

Unreliable accounts: Honest confusion, such as eyewitness descriptions. Eyewitnesses are notoriously undependable. Study after study has shown that people who witness a traumatic or spontaneous event rarely have the completely accurate recollection of it after the fact. ⁷¹

Uninformed opinion: Many subject areas, such as science, require specialized expertise or study to understand. The layman may be easily confused by "junk science" that sounds convincing but touts conclusions which are outside the mainstream of scientific consensus.

Malice: The deliberate intent to produce harm or generate mistrust.

Mischief: Pranks, hoaxes, often aimed at revealing gullibility of the public, such as websites calling for the banning of "dihydrogen monoxide" as a dangerous chemical. Dihydrogen monoxide is just a fancy name for H₂O, or water.

Propaganda/Agitprop: A campaign designed to advance a political, social, or other agenda, to create social unrest and mistrust.

Popular Myths: Things generally believed to be true that aren't true, such as the Great Wall of China is the only man-made object visible from space, or water drains in reverse in the southern hemisphere.

⁷¹ Hal Arkowitz and Scott O. Lilienfeld, "Why Science Tells Us Not to Rely on Eyewitness Accounts," *Scientific American*, January 8, 2009. http://www.scientificamerican.com/article/do-the-eyes-have-it/

Apocrypha: Stories too good to check, but which appeal to our sense of humor or outrage, and fit a predisposed belief or stereotype about the ironies of life or the capacity of humans to do dumb or remarkable things.

Preying on mistrust of government: Using real examples of government misdeeds to sow doubt and confusion. Many people are already predisposed to believe the worst about government; so reminding them of real abuses in the past can lay the groundwork for disbelief.

Selective use of facts: Using accurate, verifiable facts to create an inaccurate picture by leaving out the mitigating factors or the non-obvious explanation for events.

Quote mining: Using only part of an actual quote to completely change the meaning of the thought. That's different from an out-of-context quote, which may be technically accurate, but not give the complete thought or the full shade of meaning. Quote mining generally turns the original statement on its head.

Non-expert experts: featuring people as experts who are not subject to peer review, or are otherwise unaccountable for their assertions.

Fabrication: Knowingly creating a fictional narrative, or phony evidence.

Production values: Spending money on graphics, special effects, music to make the presentation look polished and professional. This can give specious claims an aura of authority.

Celebrities: Getting a famous person to endorse a view can lend credibility to a false argument.

False Balance: Giving equal weight to unequal evidence. Undermining the accurate account by "balancing" it with a dubious opposite view, portraying both as equally valid, even if there may be no real evidence to support it.

After *Popular Mechanics*, a 100-year-old journal about science, engineering, car maintenance, and home improvement, tackled the thankless task of fact-checking and debunking 9/11 myths, it was soon buried under a torrent of angry comments and emails, which Editor-in-Chief James B. Meigs described as generally featuring a "tone of outraged patriotism... apocalyptic rhetoric, and the casual use of invective."

Meigs, in much the same way I did, began in the course of the magazine's investigation to identify and catalog some of the methods that in his words, "give conspiracy theorists their illusion of coherence." Meigs cites the following:

Marginalizing Opposing Views: Portraying the mass consensus as the product of a small coterie of insiders.

Argument by Anomaly: The mistaken belief a handful of unexplained anomalies can undermine a well-established theory.

Slipshod Handling of Facts: From mere sloppiness to a deliberate disregard for the truth.

Repetition: Assertions that have been debunked or false impressions that have been corrected get repeated hundreds of times, with no acknowledgment of the subsequent correction.

⁷² Dunbar and Reagan, Debunking 9/11 Myths, 92.

Circular Reasoning: Evidence that supports the consensus view is dismissed as suspiciously "too convenient." Physical evidence linking the hijackers to the attacks must have been planted to further the conspiracy. The plane wreckage witnesses saw at the Pentagon crash site? One commenter suggested a truck bomb, loaded with plane parts, was more likely responsible.

Demonization: Many experts have lent their expertise in efforts to debunk the specious claims of the 9/11 Truth Movement. But to the "Truthers," anyone disputing their theories must be in on the plot, or patsies of the government. When I posted a story explaining that my "no evidence of a plane" comments were grossly distorted, a common response was the "government got to him."

It was historian Richard Hofstadter who in 1964 published his now-famous essay "The Paranoid Style in American Politics" in *Harper's* Magazine. ⁷³ His exhibit A: paranoid style was the example of Wisconsin Sen. Joseph McCarthy, whom he quoted from a 1951 speech on the "parlous situation of the United States:"

How can we account for our present situation unless we believe that men high in this government are concerting to deliver us to disaster? This must be the product of a great conspiracy on a scale so immense as to dwarf any previous such venture in the history of man... What can be made of this unbroken series of decisions and acts contributing to the strategy of defeat? They cannot be attributed to incompetence...⁷⁴

McCarthyism is now a noun in the dictionary. Here's how *Merriam-Webster* defines it: "*McCarthyism* is a mid-20th century political attitude characterized chiefly by opposition to elements held to be subversive and by the use of tactics involving

⁷³ Richard Hofstadter, "The Paranoid Style in American Politics" *Harper's* Magazine. November 1964. http://harpers.org/archive/1964/11/the-paranoid-style-in-american-politics/

⁷⁴ Hofstadter, *Harpers*, 1964, 2.

personal attacks on individuals by means of widely publicized indiscriminate allegations especially on the basis of unsubstantiated charges."⁷⁵

Among the tactics McCarthy shared with today's 9/11 truthers – aside from making unfounded allegations – is a vilification of the news media. For a full, nuanced, and authoritative account of McCarthy's perfidy, there is probably no finer book than Haynes Johnson's *The Age of Anxiety*, in which the author details how an ineffective press corps, along with the weak standards of the day, helped McCarthy spread his venomous conspiracy theories about "traitors and communists" co-opting U.S. policy at the State Department. Like the 9/11 truthers, McCarthy demonized the mainstream press, repeatedly singling out the news media as part and parcel of the phony Communist conspiracy. Johnson wrote: "McCarthy's message – that the American Press was infested with biased liberals and, of course, Communists and Socialists – has been a source of political divisiveness and public distrust ever since."

Now to be sure, McCarthy had a much more deleterious effect on American society than today's 9/11 conspiracists, who are generally ignored by the public at large. But the same factors that allowed McCarthy to successfully raise doubts about the loyalty of government bureaucrats are employed by the purveyors of pernicious false narratives that undermine both the government and traditional journalists.

⁷⁵ "McCarthyism," *Merriam-Webster.com*. Accessed September 18, 2014. http://www.merriam-webster.com/dictionary/McCarthyism

⁷⁶ Haynes Johnson, *The Age of Anxiety: McCarthyism to Terrorism* (New York: Harcourt, 2005), 139.

McCarthy is an example of what I have come to believe is a root problem in the fight against conspiratorial fantasy. Call it McIntyre's "First Law of False Beliefs," to wit: "Very convincing arguments can be made for things that are not true."

Perhaps the simplest illustration of this theorem is a criminal trial. Two sets of lawyers take the same facts, and try to convince a jury of two radically different interpretations. Prosecutors argue the defendant is guilty. Defense attorneys build a case, with the same facts, that he's innocent. Marcia Clarke says O.J. Simpson killed those two people, and Johnny Cochran convinces the jury, "If the glove don't fit, you must acquit." Two very convincing cases are argued. But only one is right.

Early in my career I experienced this firsthand, when in the 1980s I covered the trial in Montgomery County, Maryland, of Timothy Buzbee, dubbed the "Aspen Hill Rapist." His defense team did a masterful job, even inviting the reporters covering the trial to the scene of the crime to show how it was inconsistent with the evidence given at trial. As a rational person, with an open mind, who had heard all the evidence in court, I was convinced. It didn't add up. Timothy Buzbee didn't do it.

But then, in a moment not unlike the classic Perry Mason television shows of the 1960s, there was a dramatic courtroom revelation. Blowups of credit card receipts taken from the victim after the crime revealed Buzbee's signature underneath the forged version. He had accidentally signed his own name, and then written over it. He was guilty. There was no other explanation. The defense case collapsed with the

smoking gun, and Buzbee went to prison. And in 2009, with advances in DNA technology, he was linked to three more rapes dating to 1977.⁷⁷

I learned a lesson: "Very convincing arguments can me made for things that are not true."

An even more obvious case for how we are easily deceived by sophisticated techniques of deception is magic, by which I mean magicians and their illusions. We don't see how magic tricks are done, but they appear to accomplish the impossible.

Magicians saw people in half, make lions disappear and read our minds.

Yet we are not fooled into thinking the magic is real. As superstition expert Stuart Vyse writes:

The magician's act is made up of tricks, and there is an understanding between the performer and the audience that nothing supernatural is involved. No one is more aware of the tacit agreement than the professional stage magicians. Although members of this unique group guard their secrets jealously, most clearly identify themselves as entertainers, not priests.⁷⁸

When it comes to magic, we are amazed and delighted to discover that seeing is not believing, but it may not be as obvious when others who practice to deceive are also employing legerdemain, but of a more nefarious nature. If fact, it may be the case that when it comes to deliberate deception, journalists and scientists are not the best equipped to detect sophisticated trickery. Some professional magicians, such as noted skeptic James "The Amazing" Randi, have made an entire career showing how

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⁷⁷ Dan Morse, "Three decades later: Confronting the 'Aspen Hill Rapist'" *Washington Post*, March 1, 2012.

⁷⁸ Stuart Vyse, *Believing in Magic, The Psychology of Superstition*, Updated Edition (New York: Oxford University Press, 2014), 7.

what appear to be psychic or supernatural phenomena are basic magic tricks. It takes a magician to spot a magician.

But the characteristic that seems to separate the conspiracy theorist from the con man or the phony mind reader is that so many have been willing to suspend their own disbelief – out of fervent belief that they must be right, even if for the wrong reasons.

So what can be done?

Chapter 6: Elements of Correction

In 2013, *Popular Science* gave the marketplace of ideas a whopping vote of "no confidence" when the venerable 141-year-old journal of science and technology announced it was shutting off reader comments for its online articles, with the blunt assessment, "Comments can be bad for science."

It turns out that, just as unregulated financial markets can encourage and reward unsound practices and dishonest behavior, one effect of unregulated information markets can be to skew facts and cloud judgments.

Suzanne LaBarre, online content director of *Popular Science*, explained the decision in an online post (with no comments) as one that was not taken lightly. The editors believed the comments were undermining their core mission of "fostering lively, intellectual debate" and "spreading the word of science."

LaBarre cited research she said shows, "even a fractious minority wields enough power to skew a reader's perception of a story." The study in the *Journal of Computer-Mediated Communication* reported on an experiment designed to measure what the researchers dubbed "the nasty effect." The researchers gave more than 1,000 people a fictitious blog post to read about a technology product they were unfamiliar with. They then exposed half the participants to civil comments and the other half to rude ones. Dominique Brossard and Dietram A. Scheufele described the

63

⁸⁰ Ashley A. Anderson, et al., "The 'Nasty Effect:' Online Incivility and Risk Perceptions of Emerging Technologies," *Journal of Computer-Mediated Communication* Volume 19, Issue 3, 373–387, April 2014.

⁷⁹ Suzanne LaBarre, "Why We're Shutting Off Our Comments," *PopularScience.com*, September 24, 2013, http://www.popsci.com/science/article/2013-09/why-were-shutting-our-comments.

findings of their four-person team in a *New York Times* opinion piece, writing, "The results were both surprising and disturbing. Uncivil comments not only polarized readers, but they often changed a participant's interpretation of the news story itself." Interestingly, the online opinion piece had 400 comments, but they were curated by the *New York Times*, so all the top comments were thoughtful, civil, and on point.

Popular Science found itself becoming an unwitting tool for propagating popular myths and junk science and so, as LaBarre explained, it felt it had little choice but to – in the name of science – "hit the off switch":

A politically motivated, decades-long war on expertise has eroded the popular consensus on a wide variety of scientifically validated topics. Everything, from evolution to the origins of climate change, is mistakenly up for grabs again. Scientific certainty is just another thing for two people to "debate" on television. And because comments sections tend to be a grotesque reflection of the media culture surrounding them, the cynical work of undermining bedrock scientific doctrine is now being done beneath our own stories, within a website devoted to championing science.⁸²

For *Popular Science*, enough was enough. The comments were pushing the publication uncomfortably close to committing the journalist sin of false equivalency, the simplistic and flawed notion that there are two sides to every story. Except, of course, when there are not. Some stories have many more than two sides, say for example, the Israeli-Palestinian conflict. Others have only one side, as in whether or not the Earth orbits the Sun.

⁸¹ Brossard, Dominique and Dietram A. Scheufele, "This Story Stinks," *New York Times*, March 2, 2013. http://www.nytimes.com/2013/03/03/opinion/sunday/this-story-stinks.html

⁸² LaBarre, "Why We're Shutting Off Our Comments," 2013.

The New York Times has been wrestling with the problem of too much balance or false equivalency – which Times Public Editor Margaret Sullivan has addressed in several columns, noting what she called the "he said, she said" practice has come under increasing fire, from readers and viewers who rely on accurate news reporting to make them informed citizens.⁸³

Sullivan rejects what she calls "false balance," the all-too-common journalistic practice of giving equal weight to both sides of a story, regardless of an established truth on one side. "Many people are fed up with it," she writes. "They don't want to hear lies or half-truths given credence on one side, and shot down on the other. They want some real answers."

The problem is demonstrated amply by the continuing debate over the September 11 attacks; namely that deciding what is an established truth is not always an undisputed call.

"Sometimes," Sullivan says, "readers who demand 'just the facts' are really demanding their version of the facts." ⁸⁴ She says the *Times* has been cautious but is now more willing to assert what is the consensus of science and making a distinction between religious doctrines and scientific theories:

The issue has come up frequently with science-related stories, particularly those involving climate change. The Times has moved toward regularly writing, in its own voice, that mounting evidence indicates humans are indeed causing climate change, but it does not dismiss the skeptics altogether.

The associate managing editor for standards, Philip B. Corbett, puts it this way: "I think editors and reporters are more willing now than in the past to

⁸³ Margaret Sullivan, "He Said, She Said, and the Truth," *The New York Times*, September 15, 2012. http://www.nytimes.com/2012/09/16/public-editor/16pubed.html

⁸⁴ Ibid

drill down into claims and assertions, in politics and other areas, and really try to help readers sort out conflicting claims."85

The BBC has also come under fire for giving too much airtime to skeptics disputing non-contentious issues of science. A report by the BBC Trust found that there was "over-rigid application of editorial guidelines on impartiality which sought to give the 'other side' of the argument, even if that viewpoint was widely dismissed." Among the report's conclusions, "Science coverage does not simply lie in reflecting a wide range of views but depends on the varying degree of prominence such views should be given."

So we are seeing – at least among some legacy news organizations – some small efforts, baby steps really, in a modest attempt to bend the narrative arc more toward truth and facts.

But as the persistence of false beliefs surround September 11 clearly underscores, more needs to be done.

Better Journalism

To Harvard University professor Thomas Patterson, the answer is better journalism – what he has labeled "knowledge-based journalism." He makes his case in his 2013 book *Informing the News*, in which he argues that "the public's

⁸⁵ Ibid.

⁸⁶ Sarah Knapton, "BBC staff told to stop inviting cranks on to science programmes," *The Telegraph*, July 4, 2014.

http://www.telegraph.co.uk/culture/tvandradio/bbc/10944629/BBC-staff-told-to-stop-inviting-cranks-on-to-science-programmes.html.

information has been corrupted by its providers" and that "knowledge-based journalism can act as a corrective."

He advances a sort of "If you build it, they will come," argument. If journalists become more deeply informed about the subjects they cover, he contends, they will produce better journalism, and once again become our "chief sense-makers" "the public's indispensable source of information."

He proposes that the place to start is at America's journalism schools, which he says should focus less on courses that teach how to "shape and present" materials and more on what he calls the "knowledge of how to use knowledge." This, he argues, would also make journalism graduates – who compete for reporting jobs not only against one another, but also against graduates with economics, political science and other degrees more marketable. It would give them skills he says "other graduates do not have and could not easily acquire." **88*

Patterson is enough of a realist to concede that his notion of knowledge-based journalism would not be a cure-all. "Nevertheless," he reasons, "knowledge-based journalism would provide the steady supply of trustworthy and relevant news that Americans now lack, but sorely need." 89

It is hard to argue against journalism education that focuses more on critical thinking skills, especially when we see how we consistently fool ourselves with common cognitive errors. But I would argue the reality is that newsrooms and news

⁸⁷ Thomas Patterson, *Informing the News, The Need For Knowledge-Based Journalism* (Vintage, 2013) 5-6.

⁸⁸ Ibid, 104-105.

⁸⁹ Ibid, 8.

organizations set standards, not journalism schools. Standards and practices are wildly different at the *New York Times* and the *New York Post*, at CNN and PBS Newshour, at the Rush Limbaugh show and NPR. And journalists, for better or worse, are going to adopt the standards of the news organizations they work for if they want to remain working for them. If you're employed at the celebrity gossip site TMZ, you cannot come to work every day and complain that you are not fulfilling your journalism professor's dream of being "the public's indispensable source of information."

Raising journalism standards in the age of the Internet – with blogs, constant deadlines, and pressure for clicks – can at times seem like a losing game of "whack-amole." You may stamp out junk journalism one place, but it can easily pop up in another.

Tougher Laws

Harvard Law Professor Cass Sunstein, in his book *On Rumors*, tackles what he calls "pervasive false rumors" from a completely different tack, looking to the law to help correct the public record.

Specifically, Sunstein insists that while he is not advocating any form of censorship, he nevertheless believes that in the Internet age, the threat of legal recourse could result in a positive "chilling effect" which could be "an excellent safeguard" to compensate for the shortcomings of the "marketplace of ideas." He maintains that under libel law, as it now stands, most false rumors simply cannot be

deterred or corrected. "A society without any chilling effect, imposed by social norms, and by law, would be a singularly ugly place. He argues, "What societies need now is not the absence of 'chill,' but an optimal level."

Sunstein draws on the principles of the landmark libel case *New York Times*Company v. Sullivan, which established the standard of "actual malice" and "reckless disregard for the truth." 90 He says that because actual malice is so hard to establish, good people are subject to real damage, not to mention government itself, which he reasons also suffers if its citizens cannot make fair evaluations.

His three "modest ideas" for correcting the record – which he concedes should not be embraced without undertaking "sustained analysis" – would be aimed at protecting people and institutions against falsehoods without producing the "excessive deterrence" of costly lawsuits.

- A Right To Demand Retraction If you could show a statement is false
 and damaging, you would have the right to a prominent retraction. Modest
 damages would be awarded if the retraction was not forthcoming.
- A Right to Notice and Take Down This proposal is modeled on copyright law. A website would be obligated to take down falsehoods upon notice.
- 3. **Damage Caps** Sunstein suggests A \$15,000 cap could have a chilling effect, without stifling freedom of expression, especially if awards could not be imposed on defendants who lack resources.

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⁹⁰ New York Times v. Sullivan, 376 US 254 (1964).

While Sunstein, by his own admission, spends considerable time on legal rules, he also argues that culture and social norms probably matter more. He imagines a future in which propagators of falsehoods are discounted and marginalized, and their influence is neutralized by people who are willing to think independently.

But aside from the First Amendment constitutional issues posed by these ideas, the practical and political hurdles would appear to me to be insurmountable. The cumbersome and burdensome processes that would have to be employed to enforce such laws are hard to imagine working fairly. For one thing I have already established in this thesis that many people sincerely believe things are demonstrably false, so who is to say what honest, but possibly misguided, beliefs an individual is not entitled to hold?

As laudable as his goals, I find Sunstein's ideas wholly impractical and unworkable. My personal experience would seem to provide a useful example. For instance, I believe the unauthorized posting of the video clip of my report on September 11 is being misused to advance a false agenda. But the clip is what it is. It is a real clip, from my real report, just missing crucial context. Should I have the right to make every website take it down? The fact is that CNN owns that clip and it does have the right to take legal action against its unauthorized use but chooses not to. The reality would seem to be that it is just not practical or cost-efficient.

Fact-Checking

If better journalism training and tougher libel laws are not the answer, what about more facts – and in particular – more solid facts?

Fact-checking is seen by many as the best corrective out there. It is a process in which an independent authority, with the time and resources, runs down outrageous claims, questionable assertions, and counterclaims, and renders an unambiguous judgment. Facts are then rated true, partially true, or outright falsehoods. *Tampa Bay Times* 'PolitiFact has rated inaccurate statements by everyone from President Barack Obama to House Speaker John Boehner as "pants on fire," their least truthful category. ⁹¹

One of the oldest fact-checking sites, FactCheck.org, was started in 2003 by the Annenberg Public Policy Center at the University of Pennsylvania. The *Washington Post's* Fact Checker and PolitiFact were both launched in 2007. And perhaps the granddaddy of all fact-checking websites is Snopes.com, which is operated by two people, Barbara and David Mikkelson, and is famous for debunking urban legends.

Fact-checking is becoming a worldwide journalism phenomenon. Glenn Kessler is a veteran diplomatic correspondent who writes the "Fact-Checker" feature for *The Washington Post*. After attending the first Global Fact-Checking Summit in London, Kessler reported that "scores of fact-checking Web sites have sprung up across the world, since 2010." The conference, held under the auspices of the Poynter Institute, featured fact-checkers from six continents and more than 20 countries, including Argentina, Australia, Chile, Egypt, India, Italy, Serbia, South

⁹¹ PolitiFact.org, "Statements we say are Pants on Fire!" http://www.politifact.com/truth-o-meter/rulings/pants-fire/

⁹² Glenn Kessler, "The Global Boom In Political Fact Checking," *Washington Post*, June 13, 2014. http://www.washingtonpost.com/blogs/fact-checker/wp/2014/06/13/the-global-boom-in-fact-checking/

Africa and Ukraine. Kessler cited a University of Wisconsin scholar who is writing a book on the rise of journalistic fact-checking as saying only four of the fact-checking sites represented at the conference existed before 2010.

There can be little doubt that the rise of fact-checkers and fact-checking sites has contributed to the overall availability of credible sources of information. But it is equally true that fact-checkers are not universally accepted as unbiased or even capable of arbitrating contentious debates over what constitutes "ground truth." When the *Washington Post's* Kessler fact-checked a political ad for Mitt Romney during the 2012 campaign, he awarded it "four Pinocchios" for what he judged to be the misleading assertion that President Obama wanted to eliminate work requirements for welfare. ⁹³ But Neil Newhouse, a Romney campaign pollster, famously dismissed the verdict with the assertion, "Fact checkers come to this with their own sets of thoughts and beliefs, and we're not going to let our campaign be dictated by fact-checkers." ⁹⁴

The *Associated Press* has increasingly added fact-check pieces to its standard repertoire of political coverage, and since 2008 an "accountability initiative" instituted in AP's Washington bureau has made fact-check pieces more of a priority. ⁹⁵ But Craig Silverman, writing about AP's stepped up fact-checking effort, documented their limited effect on correcting the record, noting "AP often finds its own fact-

⁹³ Glenn Kessler, "Spin And Counterspin In The Welfare Debate," August, 8, 2012. http://www.washingtonpost.com/blogs/fact-checker/post/spin-and-counterspin-in-the-welfare-debate/2012/08/07/61bf03b6-e0e3-11e1-8fc5-a7dcf1fc161d_blog.html ⁹⁴ Ben Smith, "Romney Camp Bets On Welfare Attack," *BuzzFeed*, August 28, 2012. http://www.buzzfeed.com/bensmith/romney-camp-bets-welfare-attack#1g8q6ol ⁹⁵ Craig Silverman, "AP grows fact checking beyond politics to breaking news, beat reporting," *Poynter.org*, January 10, 2012. http://www.poynter.org/latest-news/regret-the-error/158337/ap-grows-fact-checking-beyond-politics-to-breaking-news-beat-reporting/

checks getting fact-checked by others." At the same time the purveyors of misinformation pay little attention to the debate over their veracity – simply reveling in the attention, while drawing uncritical applause from their supporters.

When the AP fact-checked a prepublication copy of Sarah Palin's 2009 book, *Going Rogue*, an unapologetic Palin fired back on her Facebook page: "We've heard 11 writers are engaged in this opposition research, er, 'fact-checking' research! Imagine that – 11 AP reporters dedicating time and resources to tearing up the book, instead of using the time and resources to 'fact-check' what's going on with Sheik Mohammed's trial, Pelosi's health care takeover costs, Hasan's associations, etc. Amazing."

A typical response from one of the more than 3,000 comments: "They are too lazy to fact check and too dumb to do their own analysis and report the truth."

But it wasn't just Palin partisans who called foul on the AP fact check. The *Columbia Journalism Review* noted that many 'fact-checking' pieces actually contain counterarguments ... but few of which really fit in a 'fact-check' frame." Greg Marx criticized the AP for fact-checking Palin's claim in her memoir that she was beckoned by purpose, rather than driven by ambition. Someone's inner motivation would not seem to be a fact that can be checked but rather an opinion subject to endless debate.

⁹⁶ Sarah Palin, "Really? Still Making Things Up?" *Facebook*, November 15, 2009. https://www.facebook.com/note.php?note_id=174541533434

⁹⁷ Greg Marx, "What the Fact-Checkers Get Wrong," *Columbia Journalism Review*, January 5, 2012. http://www.cjr.org/campaign_desk/what_the_fact-checkers get wro.php?page=all

Clearly there are limits to the corrective properties of independent fact-check reports even when they are produced by as authoritative and non-partisan journalism entities as the Associated Press.

So can fact win out over fiction in the digital age in which debate can be continuously stoked by a seemingly infinite supply of myth, misinformation, and malicious mischief?

As flawed as the Internet may be as an arbiter of fact and truth, it does have a powerful aspect that has proven on some occasions to be a quick and effective antidote to myth propagation: crowdsourcing.

There are a lot of smart people who stand ready to call out patently wrongheaded or factually inaccurate assertions.

Take the case of famed astrophysicist Neil deGrasse Tyson. While his credentials to discuss the current scientific consensus about the cosmos may be impeccable, he has come under increasing attack, in some cases from his fellow scientists, for relying on false and apocryphal anecdotes to make his points in public speaking appearances.

One unattributed quote often used by Tyson comes in the form of a slide he shows with the purported newspaper headline, "Half the schools in the district are below average." The source of the headline is never given, but it's the logic that immediately comes under fire from mathematicians.

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⁹⁸ Neil deGrasse Tyson, "Fear of Numbers," Las Vegas, *YouTube*, 2011. http://www.youtube.com/watch?v=K6Y8tG6pJDY

The point Tyson was trying to make in his Las Vegas talk in 2011, and has made repeatedly in other venues since then, is that "the world is getting stupider." The line always gets a big laugh. How could people be so dumb that they don't understand that half the schools can't be below average? Except that this is an example of the intuitive logic error, identified by Rolf Dobelli earlier in this thesis. It *sounds* wrong. Tyson thinks it's so obviously wrong that it's the punch line to his joke. Except he's wrong, as many citizen fact-checkers, such as Sean Davis, were quick to explain in various blog posts, "... no Neil, that's not what an average is. At all. That's what a median is. Yes, averages and medians and modes are all measures of central tendency, but they most certainly are not the same thing."

To understand the logic trap that ensnared the esteemed astrophysicist, just think back to basic high school math where we learned about the three most common types of averages: the mean, median, and mode. When we think of average we think of the first one, the mean.

Can half of a group fall below the mean average? Think of a group of ten people. One makes \$1,000 a week in salary. The other nine make \$100. What's the average weekly salary? \$1,000 plus \$900 (\$100 times 9) equals \$1,900. Divide the sum by ten and you get the average salary: \$190 of the group. And you can see nine of the ten people are below average, that is, below the mean.

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http://www.youtube.com/watch?v=Gm-8-8401WQ#t=210

⁹⁹ Tyson, Mount Holyoke College, *YouTube*, 2012.

¹⁰⁰Sean Davis, "Did Neil deGrasse Tyson Just Try To Justify Blatant Quote Fabrication?" *The Federalist*, September 15, 2014.

http://thefederalist.com/2014/09/15/did-neil-degrasse-tyson-just-try-to-justify-blatant-quote-fabrication/

It seemed Tyson was making a joke along the lines of Garrison Keillor's famous observation about all the children of Lake Woebegon being above average. Except Keillor had it right. While it is possible for more than half to be above or below average, it is not possible for *all* of them to be. Even really smart people make dumb thinking errors.

Chapter 7: Conclusions

The facts, studies, and arguments reviewed in this thesis tend to support several broad conclusions:

1. Conspiracy theories, myths and other false beliefs have always been -- and will likely always be -- with us.

The general consensus of those who have spent time studying conspiracy theories and their believers is that they are not going away.

Richard Hofstadter, whose book *Anti-intellectualism in American Life* was awarded the Pulitzer Prize for General Nonfiction in 1964, wrote in his seminal Harper's essay: "This glimpse across a long span of time emboldens me to make the conjecture – it is no more than that – that a mentality disposed to see the world in this way may be a persistent psychic phenomenon, more or less constantly affecting a modest minority of the population." He ended his essay with this wistful observation, "We are all sufferers from history, but the paranoid is a double sufferer, since he is afflicted not only by the real world, with the rest of us, but by his fantasies as well.¹⁰¹

Author Jesse Walker, the books editor of *Reason* magazine, summed it up this way in his own 2013 book, *The United States of Paranoia*:

The conspiracy theorist will always be with us, because he will always be. We will never stop finding patterns. We will never stop spinning stories. We will always be capable of jumping to conclusions, particularly when dealing with other nations, factions, subcultures, or layers of the social hierarchy. And

¹⁰¹ Richard Hofstadter, "The Paranoid Style in American Politics" *Harper's* Magazine. November 1964. http://harpers.org/archive/1964/11/the-paranoid-style-in-american-politics/

conspiracies, unlike many of the monsters that haunt our folklore, actually exist, so we won't always be wrong to fear them.

Which leads to another fundamental conclusion of this research, namely:

2. Belief in conspiracies is not, in and of itself, irrational.

The predisposition to believe the worst about the government, the media, large corporations or other groups with vested interests is not necessarily a sign of irrational paranoia. It can often be a sign of healthy well-founded skepticism. Michael Shermer, the founding publisher of *Skeptic* magazine writing in *Scientific American*, notes:

Conspiracies do happen, of course. Abraham Lincoln was the victim of an assassination conspiracy, as was Austrian archduke Franz Ferdinand, gunned down by the Serbian secret society called Black Hand. The attack on Pearl Harbor was a Japanese conspiracy (although some conspiracists think Franklin Roosevelt was in on it). Watergate was a conspiracy (that Richard Nixon was in on). How can we tell the difference between information and disinformation? As Kurt Cobain, the rocker star of Nirvana, once growled in his grunge lyrics shortly before his death from a self-inflicted (or was it?) gunshot to the head, "Just because you're paranoid don't mean they're not after you." 102

3. What we think we know from history can be wrong.

Our beliefs are often viewed through the lens of what we believe has happened in the past. The common maxim, "History is written by the victors," is often attributed to Winston Churchill, but quote researcher Ralph Keyes says it is actually an old idea given modern expression by many people, including Napoleon, Nehru, and Stalin. 103

¹⁰² Michael Shermer, "Paranoia Strikes Deep" *Scientific American*, September 2009, Vol. 301, Issue 3.

¹⁰³ Ralph Keves. *The Ouote Verifier* (New York: St. Martin's, 2006), 90.

A pithier and more cynical view of history is rendered by Ambrose Bierce in his classic *Devil's Dictionary*: "History, *n*. An account mostly false, of events mostly unimportant, which are brought about by rulers mostly knaves, and soldiers mostly fools." But a more scholarly examination of "things we know that ain't so," is offered by American University Professor W. Joseph Campbell in his examination of what he labels, "ten of the great misreported stories in American journalism." He blames not fringe conspiracy theorists for the persistence of many false beliefs, but mainstream news organizations and well-respected historians for perpetuating what he terms "media myths." Campbell debunks what he calls "some of the most treasured stories in American journalism," such as the belief that President Lyndon Johnson, after watching a broadcast by CBS news anchor Walter Cronkite, experienced a sudden epiphany, saying, "If I've lost Cronkite, I've lost middle America."

Media myths also tend to minimize or negate complexity in historical events and present simplistic and misleading interpretations instead. Edward Murrow no more took down Joseph McCarthy than Walter Cronkite swayed a president's views about the war in Vietnam. Yet those and other media myths endure, in part because they are reductive: they offer unambiguous, easily remembered explanations of complex historic events. ¹⁰⁶

The corrosive effect of such false accounts of historic events is that they erode trust in what purports to be factual, accurate reporting. If the accepted view of history is wrong, how reliable is the accepted view of anything? And the media myths also

¹⁰⁴ Ambrose Bierce, *The Devil's Dictionary* (1911 p.57), as cited by Leonard Roy Frank, *Random House Webster's Quotationary*, (New York: Random House, 1999). ¹⁰⁵ W. Joseph Campbell, *Getting It Wrong: Ten of the Greatest Misreported Stories in American Journalism* (Berkley: University of California Press, 2010), 5. ¹⁰⁶ Ibid. 4.

tend to support negative stereotypes. Campbell cites what he labels "the widely misreported pandemic of crack babies in the late 1980s and early 1990s, and the exaggerated reports of violence in the aftermath of Hurricane Katrina in 2005" as two examples that falsely confirmed the "worst pathologies associated with inner-city poor people."

Those who do not remember history may be condemned to repeat it, as the adage goes, but those who misremember history are also at risk of learning the wrong lessons and perpetuating damaging stereotypes.

4. There can be honest disagreement about what is a fact and what constitutes truth.

Is Jesus the son of God? For many Christians this is a matter of faith, not subject to any scientific, evidence-based test. But a rational fact-driven argument can be constructed as well. Paul Little does a commendable job in his book *Know Why You Believe*. ¹⁰⁸ And because the scientific method leaves room for doubt, and in fact encourages doubt and the search for disconfirming facts, it is by its nature a process that accommodates new ideas and concepts that may have at one time seemed unthinkable or improbable. All human knowledge is subject to revision if new facts or evidence emerge. There is a difference between what is "settled science," and what may be an immutable law of the universe. Truths we hold to be "self-evident" may not always be true or self-evident.

5. Human nature is not predisposed to unemotional rationality.

¹⁰⁷ Ibid, 5.

¹⁰⁸ Paul E. Little, *Know Why You Believe* (Illinois: Inter-Varsity Press, 1971).

In this thesis I have explored many ways we humans fool ourselves into thinking we are behaving rationally and acting logically when in fact we are not. I have examined how heuristics – the mental shortcuts that help us navigate life's decisions without having to burden our brains with exhaustive analysis – also make us more likely to believe and accept false beliefs and faulty logic. And I have concluded that this is not necessarily a failing. We simply could not function if we had to do an exhaustive analysis before we adopted any belief. We trust our instincts and that mostly works for us. I do think that it can be very beneficial to attempt to be more cognizant of when we are relying more on intuition than reason. Just that increased understanding of the subconscious ways our brain fools us can improve our judgments and decision-making.

6. Efforts to correct false beliefs are often ineffective and sometimes counterproductive.

This paper also documents the strong emotional attachment we have to our beliefs. Satirist Stephen Colbert is widely credited with the tongue-in-cheek observation, "I'm not a fan of facts. You see, the facts can change, but my opinion will never change, no matter what the facts are." I spent an inordinate amount of time searching for time and place Colbert originally made that comic riff, including scouring an entire book about his life, but never found the source. ¹⁰⁹ Maybe he never really said it. I cite it anyway because it so perfectly encapsulates our natural tendency toward cognitive dissonance. After reviewing hundreds of pages of research and dozens of books on the subject, if I had to distill the reasons we believe things

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¹⁰⁹ Lisa Rogak, And Nothing But the Truthiness: The Rise (And Further Rise) of Stephen Colbert (New York: St. Martin's Griffin, 2011).

that are not true, in defiance of all logic and reason, it would be this. "We believe untruths mostly because we want to."

7. It's complicated.

Some subjects are just very complex and difficult to understand, and not just for the layman. Some may require special knowledge in areas such as science, mathematics, medicine, or even history. And we all have gaps in our knowledge. We simply can't know everything there is to know about everything. The result is we may defer to experts, who themselves can be confused, or more often just rely on our instincts, which the research shows can mislead us in myriad ways.

What's the Answer?

There are essentially two areas of pursuit when it comes to correcting false beliefs: debunking the purveyors and/or convincing the believers. It may seem, at first blush, that the two areas are in fact the same. That is to say that the first goal, "debunking the purveyors," is simply a means of achieving the second goal, "convincing the believers."

But they are in fact two very different things. If someone is spreading a false rumor about you, you can try to get the gossipmonger to stop, or you can try to convince people the rumor is untrue.

As we have seen when it comes to the false narrative about the September 11 attack on the Pentagon, efforts to dissuade the purveyors of the misinformation ultimately proved fruitless. To the extent there was any success in containing the

spread of the Pentagon attack "inside job" conspiracy theory, it came not from curbing the selling of the story, but from discouraging the buying of it.

Simply offering an alternative product – in the form of a higher-quality, more authoritative, better-reasoned, fact-based account – also had limited effectiveness among those who were predisposed to accept the false account.

In his book, *On Rumors*, Harvard Law professor Cass Sunstein posits – for the sake of argument – that society could be thought of as consisting of two groups: the "sensibles and the unreasonables." Both groups, he argues, are likely to process information in a biased manner, accepting those materials that fortify what they thought before and rejecting those that contradict their original views as "implausible, incoherent, ill-motivated, and probably a bit crazy." ¹¹⁰

Sunstein cites two factors in the biased assimilation of information: strong prior belief and skewed trust, and he cited the research of Kahan, et al in asserting: "If you want to move people away from their prior convictions, it is best not to present them with the opinions of their usual adversaries, whom they can dismiss, but instead the views of people with whom they can closely identify." ¹¹¹

So while Thomas Patterson argues in *Informing the News* the solution is training better journalists and giving them a more solid grasp of their subject matter, and a knowledge of using knowledge, I would argue that the solution, to the extent there is one, is to expand that argument to education as a whole.

A more savvy news and information consumer is the best defense again the flim-flam artists peddling pseudo facts to an all-too-gullible public. One can marshal

Sunstein, *On Rumors*, 51.Ibid, 52.

all the facts, logics and reason in the world, but a closed mind will remain an impenetrable barrier.

Researchers Green and Donahue recognized this factor in their study of the effect of corrective information on people exposed to fictional narratives. For the new facts to change beliefs, the subjects had to be open to the information, as well as have the thinking and reasoning skills that would allow them to properly process the information. "People also have to possess certain qualities of mind: *critical reasoning skills* essential to drawing valid inferences from evidence; a faculty of *cognitive perception* calibrated to discerning when a problem demands such reasoning; and the intrinsic motivation to perform the *effortful information processing* such analytical tasks entail." ¹¹²

In 2012, Charles Negy, Associate Professor of Psychology, University of Central Florida, encountered what he considered a deficit in critical thinking skills in his Cross-Cultural Psychology lecture class of almost 500 students. The issue arose when a small number of Christian students asserted their religious views to be the "most valid," and when one student urged others not to engage in an exchange of ideas because presumably the validity of Christianity is not debatable, it was more than Professor Negy could stand.

After the class, Negy composed an email he students decrying what he labeled as "let's just put our fingers in our ears so we will not hear what we disagree with," "anti-intellectualism," and "religious bigotry," and in particular the unwillingness of

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¹¹² Melanie Green, and John K. Donahue, "Persistence of Belief Change in the Face of Deception: The Effect of Factual Stories Revealed to Be False," *Media Psychology* 2011, no. 3: 312-331.

college students to seriously consider other points of view. "Some students," he wrote, "erroneously believe a university is just an extension of high school, where students are spoon-fed 'soft' topics and dilemmas to confront, regurgitate the 'right' answers on exams (right answers as deemed by the instructor or a textbook)."

Negy's email went on to explain that the purpose of a university, and his course in particular, is to struggle intellectually with some of life's most difficult topics, while noting "it is not the case that all views are equally valid; some views are more defensible than others:"

Critical thinking is a skill that develops over time. Independent thinking does not occur overnight. Critical thinkers are open to having their cherished beliefs challenged, and must learn how to "defend" their views based on evidence or logic, rather than simply "pounding their chest" and merely proclaiming that their views are "valid." One characteristic of the critical, independent thinker is being able to recognize fantasy versus reality; to recognize the difference between personal beliefs which are nothing more than personal beliefs, versus views that are grounded in evidence, or which have no evidence. 114

The body of research on false beliefs and magical thinking firmly demonstrates that they're not a manifestation of ignorance or psychological problems. Rather they are a normal and common part of our psychology, a coping mechanism for humans to process and understand a world that can seem disordered and even sinister.

In his book, *Believing in Magic*, Connecticut College psychology professor Stuart Vyse argues, "Without making criminals out of believers, we must adopt

¹¹³Charles Negy, Associate Professor of Psychology, University of Central Florida, email to students, *Huffington Post*, Aug 16, 2012. http://www.huffingtonpost.com/2012/08/16/charles-negy-reddit-letter-to-

http://www.huffingtonpost.com/2012/08/16/charles-negy-reddit-letter-to-students n 1789406.html

¹¹⁴ Ibid.

policies that encourage people to choose reason over unreason. We must provide alternate methods of coping with life's uncertainties, and promote other more rational systems of belief." But he concedes, "It will not be an easy task." ¹¹⁵

Professor Vyse teaches a class that I would think should be required at all universities, in all disciplines. It is a freshman seminar called "Psychology and Critical Thinking," and he describes it as basically "how to tell a good argument from a bad one." His assigned reading is an essay by American philosopher Charles Sanders Peirce, in which the 19th Century pragmatist outlines four basic ways of attaining knowledge: tenacity, authority, a priori, and the scientific method.¹¹⁶

Vyse argues tenacity – holding onto an idea because of "stubborn loyalty" is the poorest source of knowledge. Authority is not much better, he says, because authorities are often wrong, especially when they "resort to their powerful status as support for the validity of their ideas." A priori is essentially our intuitive sense: something that makes sense or seems to fit. Earlier in this thesis, I outlined the shortcomings of relying on intuition over reason, and why it is prone to error. Finally is the "scientific method," which Vyse actually divides into two methods, "empiricism" and "rationalism."

It would take another thesis entirely to explore the ways scientific methods differ and how the self-correcting process of scientific inquiry can result in theories that are modified or discarded over time.

¹¹⁵ Stuart Vyse, *Believing in Magic, The Psychology of Superstition*, Updated Edition (New York: Oxford University Press, 2014), 255.

Charles S. Peirce, "The Fixation of Belief," *Popular Science Monthly*, November 12, 1877), 1-15. http://www.peirce.org/writings/p107.html

¹¹⁷ Vyse, *Believing in Magic*, 256.

¹¹⁸ Ibid, 255.

But Vyse makes the overarching case, that I would make as well, namely that it is important to teach the skills of critical thinking early, not waiting until students get to college, but rather beginning in elementary school.

Students could be taught to evaluate the authorities they encounter on television and elsewhere. They can learn how to determine whether the views of the authority are based on empirical inquiry (good) personal experience (not so good) or yet another authority (bad). Does the authority attempt to convince her audience by an appeal to the evidence or to her personal status and power? Does the authority have a vested interest in a particular view? What is the quality of the evidence given?¹¹⁹

I would suggest journalists seeking to find and further the truth, as well as engaged citizens at every level, would do well to ask and answer those questions.

This thesis took me on a journey of inquiry that over a period of several years circled back close to where I started, when finding myself at the center of a conspiracy theory, I wondered: how could so many smart people believe dumb things? I thought then, as I think now: We all have to learn to think more critically, except now I have a much better understanding of how challenging that can be, and why for some people it is not likely to happen.

I have concluded from my research and from my personal experiences as detailed in this thesis that there is no quick fix, no antidote to human nature and all its cognitive errors, no way to marshal facts, logic and reason that can't and won't be met with pseudo-facts, faulty logic, and emotion. But that does not mean it is not a fight worth fighting.

¹¹⁹ Ibid.

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