

AN MIT COMPUTER SCIENTIST EXPLORES PARALLEL UNIVERSES,
THE SIMULATION HYPOTHESIS, QUANTUM COMPUTING,
AND THE MANDELA EFFECT

THE SIMULATED MULTIVERSE

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Chapter 2

The Mandela Effect—Real or Mass Delusion?

What we would need at this point is to locate, to bring forth as evidence, someone who has managed somehow ... to retain memories of a different present, latent alternate world impressions, different in some significant way from this, the one that is at this stage actualized.

—Philip K. Dick, Metz Speech (1977)

Even Philip K. Dick recognized his idea of lateral worlds branching off in a computer-generated reality—his version of a simulated multiverse—would be very difficult to prove scientifically, since it was all based on his own memory. However, Dick recognized that if we could find other people who remembered different pasts or alternate presents, meaning they remembered a different timeline, this would lend more credence to his worldview.

It turns out that is exactly what the Mandela effect, which my colleague Bruce mentioned to me, was all about. It would have been difficult in pre-Internet times to corral a large number of people who might remember something differently. The Mandela effect has become so popular precisely because of the ability to collect memories from people in different locations instantly.

My goal in this book is not to try to prove or disprove the Mandela effect; rather, it is to use it as a way to illustrate our larger idea, that of a simulated multiverse running multiple timelines, branching and merging in an ongoing computation. The Mandela effect, it turns out, is a colorful way to talk about the idea of multiple pasts that we can all relate to.

What Is the Mandela Effect?

The name of the Mandela effect refers to people remembering Nelson Mandela's tragic death in prison in the 1980s, even though he actually survived until long after his release. The term itself was coined by blogger Fiona Broome, when she encountered a number of people who remembered things that hadn't happened, ranging from Mandela's death in prison to episodes of *Star Trek* that don't seem to exist. On her website, Broome has collected many examples of this effect, where a large number of people remember things differently than they actually happened.⁹

Broome herself notes that in the decade since she coined the term, the phrase has gone mainstream. It was even referenced in the recent reincarnation of *The X-Files* and has become a popular Internet meme¹⁰. Many mainstream news sites have had articles about it, going over examples of these effects¹¹, and recognizing its popularity with the public, many scientific news sites have published articles debunking it.¹²

Let's start with a slightly more formal definition:

<p>The Mandela effect is a phenomenon in which the minority of the public retains memories of past events (or objects) that are different from what the majority remembers.</p>
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You'll see that when we talk about a single Mandela effect (an "effect" or "effects"), we are talking about (usually) two versions of a single *item* (event, picture, object, quote, etc.): what the majority remembers and what the minority remembers. What the majority remembers, and what is documented online and by historians, would be what Dick would refer to as the "consensus gentium" present reality. Sometimes, there is more than one alternate version of the item in question, which could be defined as multiple effects taking place at different times.

At least to the minority of those who remember something different, the current present reality implies that somehow,

somewhere along the way, either in the past or the present, an alteration was made. Alternatively, you could say the alteration was made in the memory (of either the majority or the minority) to conform with the new present timeline.

In this model, the majority has no memory or history of the alteration despite anecdotal remembrances from people in the minority. In some cases, there is some circumstantial evidence to support the minority's claim that something was different, but nothing definitive.

There is, of course, a conventional explanation of the Mandela effect that has nothing to do with timelines: that it is simply faulty memory. We'll talk about this and other possible explanations later in this chapter.

Since Broome's first naming of the Mandela effect, many examples of effects have spread, primarily online in forums on Reddit and social media. One particular Reddit forum (r/mandelaeffect) is a treasure trove of people posting possible effects and others commenting on whether they remember the *alternate* or the *current* version of events.

As my friend Bruce warned me, online forums like that one can become veritable rabbit holes, containing not just the popular well-known effects but also many obscure effects that may have been experienced by only a few people. For our purposes, since we are concerned with merging timelines and diverging timelines more than individual variances, we'll focus only on those effects that have been reported by many people.

Categories of Mandela Effects

It's easier to understand the scope of the Mandela effect and to come up with explanations for individual effects by taking a bird's-eye view of the landscape. I believe this is best done not by listing 30 or 40 of them individually, as many online articles do, but to break them into categories.

My rather informal categorization of the most interesting effects includes the following buckets:

- Major Events/Deaths
- Film/TV-Related
- Spellings and Logos
- Geography
- Religious Scripture
- Physical Objects

Before we go into possible explanations for the Mandela effect or how it relates to overall thesis, let's go through a few examples in each category.

Major Events/Deaths

The most startling examples are ones that involve nonexistent events that many people remember happening, such as Mandela's supposed death, after which the effect is named.

Broome writes on her website that she thought Mandela died in prison:

I thought I remembered it clearly, complete with news clips of his funeral, the mourning in South Africa, some rioting in cities, and the heartfelt speech by his widow.

Then, I found out he was still alive.¹³

In our timeline at least, after spending almost three decades in prison, Mandela was released in 1990. It was a global news event that was "... watched by millions across the world."¹⁴ The next year, in 1991, he became president of South Africa and shared the Nobel Peace Prize with Frederik Willem de Klerk, the last white president of the country who oversaw the end of apartheid and transfer of power.

Broome then interviewed hundreds of people and found they also shared the alternate memory of Mandela dying in prison, complete with details of the funeral along with details of where they were when they heard the news.

At the time the name was coined, Mandela was still alive, so it couldn't have been his funeral that they were remembering, could it? One explanation often given is that they were remembering the death of another South African in prison, Steve Biko, who died in 1977. But this ignores that when people remember where they were upon hearing of the death or watching the funeral, it was during the 1980s (and in a subset of cases, it happened even later, in the 1990s).

This explanation (faulty memory) and many like it for the effects to follow could perhaps be accepted easily (as many mainstream scientists do) but for the factors of *significance* and/or *proximity*. Unlike, for example, a misspelling of a brand of peanut butter, for some people Nelson Mandela had a particular significance. In some of the effects we'll explore, there was both significance and proximity to the subject.

For example, YouTube blogger Eileen Colts tells how she, as a journalism student, actually went to South Africa to try to interview Mandela in prison, but she couldn't because she was told he was "very ill." Later, when she graduated and was working at an NPR station in Chicago, she remembers: "In 1986 or 1987, I specifically recall hearing reports at work that were broadcast of Nelson Mandela's death in prison, tragically just weeks before his release was finalized."¹⁵ She goes on to say that she also recalls his widow, Winnie, taking over as the leader of the resistance movement, a detail that is echoed by others who remember this timeline. Stories like Eileen's are not that uncommon and are usually ignored by those who, to borrow an *X-Files* term, "want to believe" that the all Mandela effects can be casually dismissed.

In some cases, it's not the event itself, but the date that is remembered differently. Most of us know that the space shuttle *Challenger* exploded in 1986, but many insist it was in 1985 or even as far back as 1983, often citing specific things they were doing or which class they were in when it happened.

Going further back, those who were alive during the Lindbergh baby kidnapping of the 1930s know that Charles Lindbergh's baby

was found in 1932. It was national news during a time when the news media wasn't so varied as it is today. However, some subset of people claimed to remember that the baby was never found. Similarly, many people claim to remember watching documentaries and wondering what had happened to the baby that was never found.¹⁶

Similarly, some claim to remember the preacher Billy Graham dying sometime between the 1990s and the early twenty-teens, and even remember details such as Bill Clinton speaking at his funeral. However, in our timeline, Graham died in 2018. Being one of the more recent effects, this was one that surfaced on Reddit many times. In 2015, an entry reads:

I distinctly recall, a couple of years ago (... 2013 or so) my grandparents (who I live with) telling me that Billy Graham had passed. They are both staunch Christians who followed Graham's ministry for a very long time, so I took this at face value. A few days later, an evangelical magazine arrived in the mail (I remember because I fetched the mail that day) with a cover story on Graham's death. His picture on the front and everything. A short time later, the grandparents went out of state to attend some big Christian conference. When they returned, they told me how someone (possibly Graham's son? not sure) got up and gave a lovely speech, some nice words about Graham's life and memory. They continued to talk about the man's death for some time after.¹⁷

There are many who remember Graham's funeral, recalling specific details. Personally, not having paid attention to Graham or Christian ministers, I wouldn't have the slightest idea whether one of them passed away, let alone the year it had happened. You might say it carried very low significance for me. On the other hand, those who followed Graham's ministry religiously, just like those of us who follow, say, one of the lead actors in Star Wars (Harrison Ford or Mark Hamill), would be keenly aware of when news of their death was received. Similarly, you might say that Mandela's death had high

personal significance and high proximity for Colts, the journalist who went to South Africa to interview him and was unable to.

In a twist on what we now know happened, many people remember seeing a young man run over by a tank in Tiananmen Square in Beijing in 1989. A quick search reveals that the young man was blocking the tank's path, but it did not run him over. From Broome's own website, some remembrances of this include: ¹⁸

I remember "tank boy" getting run over by the tank at Tiananmen Square. My husband doesn't. We googled it and apparently he didn't get run over. I have a very vivid memory though. I remember seeing a video of it. I remember learning this in 7th grade history.

—*Angel, September 2011*

I remember TANK BOY getting run over. My partner and myself were talking about Tiananmen Square and tank boy. I mentioned how horrible it was that he was killed, my partner had no memory of that and thought I was crazy. He had to go on YouTube to show me that he lived. As I watched I had no recollection of that event of him living.

—*Bree, August 2012*

Same here I remember seeing blood on the street after the tank rolled over him and how the backlash nearly caused communism to fall apart in china [sic] and then they switched to the capitalistic command economy. This is so weird.

—*James, Date Unknown*

What's going on here with this memory of events unfolding differently than as Philip K. Dick would call it, the consensus gentium memory?

We'll explore various possible explanations later in the chapter.

Film/TV-Related

Both movies and TV are parts of our modern culture that have become fairly universal, often replacing the myths that were cultural touchstones of old. Several subtypes of the Mandela effect are related to movies and TV, and these are among the most popular examples, though perhaps relatively easy to write off.

The simplest examples are the misremembering of lines; the most famous, was Darth Vader's line in *The Empire Strikes Back*, which many misremember as, "Luke, I am your father." If you watch the film again, you'll see Vader actually said, "No, I am your father."

But Vader is by no means alone. As far as lines go, many of us remember the evil queen in *Snow White and the Seven Dwarfs* asking, "Mirror, mirror on the wall," but what she actually says was, "Magic mirror on the wall."

Misremembering of titles of TV shows is also common. Many people remember *Sex in the City* as the title of HBO's hit show starring Sarah Jessica Parker from the 2000s. A quick Internet search reveals that it's actually *Sex and the City*, which was the title of the book that the show was based on.

Moving on from simple cases of a word change, we find scenes that play differently than remembered, or episodes of TV shows and entire movies that people remember distinctly but which do not exist. As an example of a scene that is different, in the movie *Risky Business*, many remember Tom Cruise dancing around in his underwear, wearing sunglasses. In fact, he wore sunglasses in the movie, but not in that scene.

Broome herself writes of an example at Dragon Con, an annual comic book type convention held in Atlanta. There was an episode of *Star Trek* (the original series) that many fans present insisted they remembered. However, the cast members of the original series who were there at the conference insist this was never filmed. Those who have attended sci-fi or comic conventions know there are some die-hard fans of these shows who not only remember more details of

shows than some of the stars but can quote lines from them which makes this case more puzzling.

In one famous case, there is a whole film that never existed (or at the least is being confused with another film) . Many people claim to remember a movie from the 1990s, starring the comedian Sinbad, called *Shazaam*, in which a kid who wishes to a genie that his father would find love again.

Meredith Upton, a 25-year-old videographer from Nashville, Tennessee, also remembers the same film. “Whenever I would see Sinbad anywhere in the media I would recall him playing a genie,” she says. “I remember the name of the film as Shazaam. I remember two children accidentally summoning a genie ... and they try and wish for their dad to fall in love again after their mother’s passing, and Sinbad can’t [grant the wish].”¹⁹

Meredith isn’t alone; there are possibly hundreds or thousands of people online who remember this movie. Some remember owning the VHS tape and distinctly remember forwarding and rewinding to specific scenes that they wanted to watch again. They also swear that the genie movie with Sinbad was different from the “other movie about a genie starring a black superstar” from the 1990s. That movie was actually called *Kazaam*, which starred NBA superstar Shaq (Shaquille O’Neil). At least in *our timeline*.

This particular effect grew so popular online that it prompted Sinbad to tweet that apparently, he was in a movie he had no memory of. In a strange bit of fan service, in 2017, Sinbad actually shot a short scene of himself playing a genie that matched the remembrances of those online of two kids finding a lamp and a genie emerging to grant them a wish.²⁰

Spelling and Logos

Perhaps the largest category of effects includes individual misspellings. This category might also be the easiest to explain away as faulty memory.

The most famous example includes the Berenstain Bears (which is actually spelled Berenstain Bears), which we'll talk more about in a minute. But there are many other effects like this. Almost as well known is Jif peanut butter, which many people remember (including me) as being Jiffy peanut butter, but there is no Jiffy, only Jif.

Another popular one is about the "Looney Toons" cartoons, which feature iconic characters such as Bugs Bunny. In fact, there is no Looney Toons—it's called *Looney Tunes*. Yet another one is Oscar Meyer wieners, which is actually spelled Oscar Mayer, with an *a* rather than an *e* after the *M*. In a reversal of the Looney Toons example, the sugar-packed cereal Froot Loops, which I ate often as a kid, is actually Fruit Loops (the first word is spelled properly). Staying on the cartoon track, *The Flintstones* is remembered by many as "The Flinstones" (without the middle *t*).

Similarly, there are slight changes to fictional characters and logos that are different than people swear they remember. As one example, the Monopoly guy, featured in the famous board game, does not have a monocle, yet many people swear he does. Are they simply confabulating him with Mr. Peanut, another colorful character, who does in fact wear a monocle? Speaking of cartoons, there is the monkey, Curious George. Many people remember him with a tail, but if you do a quick search, you'll realize there is no tail. There was, according to our timeline, never a tail on the curious little monkey. Similarly, for a younger generation, Pikachu's tail doesn't have a black part at the end; it's just yellow.

Blending logos with images: many of us remember KitKat as being spelled "Kit-Kat" with a dash, but that's not the case. Similarly, many remember the Ford logo without the little flair at the end of the middle part of the F, but there it is. According to online sources, it has always been that way since the early 1900s, when Henry Ford started the Ford Motor Company.

Investigation of this category of effects is complicated because most of the memories are from childhood, and they involve very

small details, which makes most laypersons' memories perhaps more suspect than if the memory had occurred when they were adults.

However, even within this category, there are instances when individuals were either more knowledgeable or had more at stake (i.e., higher significance and/or proximity) who remember it differently, making it less likely that they made an obvious memory error. For example, there are cases of Jewish kids wondering why the "Berenstein" Bears were Jewish, reflecting the Jewish spelling "stein" and not "stain," which would not imply a Jewish background. Some remember having conversations with their adult relatives about the "Jewish bears." Surely the adults would have pointed out the spelling mistake if that's all it was?

Geography

A number of effects relate to memory of the location of specific places on the maps. There don't seem to be as many of these, so I won't go into many details. Two common ones are the relative positions of landmasses to Australia (whether New Zealand is located to the east, the northeast, southeast, or even to the west) and South America (whether it is directly under North America or out into the Atlantic).

Religious Scripture

Perhaps more troubling and more difficult to dismiss is the category of changes to the Bible or other religious scripture. There is a whole subculture now that is devoted to seeing changes in the Bible from the time they learned the verses as children. Countless people who say they spent many hours memorizing certain phrases word for word are waking up one day to find that the phrasing of the verse in their Bible is now different.

Now, the easy explanation is that they used a different translation when they were younger, or perhaps a new edition was released. After all, the King James Bible, the most popular Bible in the West, was translated into English from Latin, and there are bound to be different translations. But these people sometimes insist that it's not

only changed in a new version, but that their physical copy of the Bible, which they have kept since they were children and still possess, is now different from what they memorized!

Now if it was simply a random phrase from a random book, that would be one thing, but great effort is made by religious people and preachers to remember passages from the Bible exactly as they are written (or at least as they are translated into your language). Like the memories of the reverend Billy Graham, they are less likely to have gotten the wording so wrong.

One of the most famous examples of this is the famous phrase, “The lion will lie with the lamb.” Not only is it one that many Christians (and even non-Christians like me) remember, but there are even paintings with a lion and a lamb together reference, right on the picture, Isaiah 11:6, the verse from which this phrase is taken.

Now, the King James Bible says: “The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together...”

Lest you think it’s an issue with the one translation, there are other versions, such as the New American Standalone Bible, that say something similar: “And the wolf will dwell with the lamb ...”²¹

Another famous one is the Lord’s Prayer, which even non-Christians have heard; it includes the phrase, “and forgive our trespasses.” But if you look at Matthew 6:12, it actually says: “And forgive us our debts, as we also have forgiven our debtors.” This one has perhaps been explained by the translations of a specific word that is use used by different denominations of Protestants.²²

Nevertheless, these are just the most well-known examples; there are many less prominent examples that are equally, if not more baffling.

There are people who believe someone, or some force, is actually changing the Bible verses by messing with our reality, and there are many websites dedicated to pointing this out.

Has the Bible actually changed since it was memorized by these religious people? While some write off the whole thing as translation

issues, others believe that there is a satanic force at work here. We'll discuss this theory as well when as we get into possible explanations.

Physical Objects

While misremembering the *t* in shows like *The Flintstones* (another common effect) is probably not cause for particular concern, or likely to result in a change in our understanding of the universe, when thousands of people remember specific details of events that we can safely say never happened, the conversation becomes more interesting. When there is physical but circumstantial evidence of the way things “used to be it becomes even more puzzling.

In the last section on Bible verses, one of the things that's quite surprising is that you can find online (and if you search your own memory) examples of physical objects that portray the lion and the lamb and often include a quote from Isaiah on the physical picture. This constitutes at least circumstantial evidence that there was a version of the phrase that said “lion” and not “wolf,” which indicates that there was a change, whether the explanation for it is mundane or supernatural or scientific.

An area that I stumbled across as I researched this was well-known works of art that seem to have changed their posture or pose. One of these is the *Mona Lisa*, whose smile many claim has changed.

Perhaps more interesting is the speculation around *The Thinker*, the famous statue from Rodin.²³ In it, the figure has his hand just under his chin, with fingers pointing at the throat. Now, a popular thing for tourists to do when standing next to a statue is to try to recreate the pose of the statue, which millions of tourists have done all over the world.

Why, then, are there tons of pictures of tourists and well-known figures reproducing the pose of *The Thinker*, but instead of having their hand under their chin, they have their hand on their forehead?

And it's not just individual tourists. George Bernard Shaw, who often posed for Rodin, posed for a picture the night that *The Thinker*

was unveiled in London. If you look at the picture by Coburn, its caption is even, “George Bernard Shaw in the Pose of the Thinker.” Yet, in this photograph, Shaw clearly has his hand on his forehead.²⁴

Adding to the weirdness, Rodin himself wrote about *The Thinker* and described it as having a clenched fist, which the current version of the statue doesn't seem to have. You might think a sculptor like Rodin would be aware of the difference. It's one thing to make a mistake of remembering some detail of a cartoon from fifty years ago differently; it's another to take a picture right next to a statue and get the pose completely wrong!

Now, there is a prosaic possible explanation. For one thing, Rodin originally designed *The Thinker* as part of *The Gates of Hell*, which is based on Dante's *Inferno* (and the figure was called “The Poet”). The Poet sits at the top of the gates looking down on everyone. Rodin decided to enlarge it and make it into a separate statue, and it became one of his better-known works (if not the best known one).

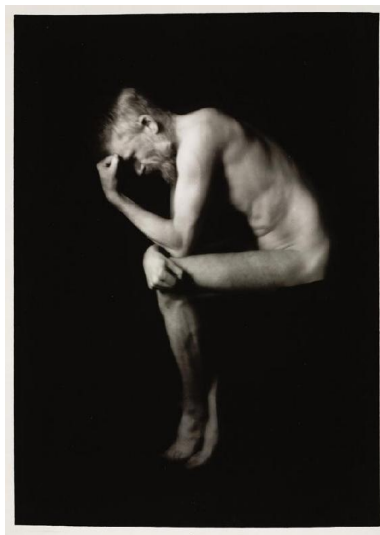




Figure 1: Picture of George Bernard Shaw in the pose of *The Thinker* (Colburn, 1906)²⁵ and picture of *The Thinker* from Rodin²⁶. Something is clearly off.

If you visit a Rodin exhibit at a museum like Stanford's Cantor Arts Center (which houses bronze casts of both *The Thinker* and *The Gates of Hell*), you will realize that Rodin went through a process that started with plaster originals. He then cast it in stone or, more commonly, metal (typically bronze). And before plaster, in some cases he must have started with sketches. With *The Gates of Hell*, the original plaster was restored and is available in Paris, from which the numerous bronze casts were made, the first of which was made in the 1920s (after Rodin's death) and is currently at the entrance to the Rodin Museum in Philadelphia.

So, is it possible that the original version he envisioned had *The Thinker* with his fist on his head, either as part of *The Gates of Hell* or as a separate statue? And when G. B. Shaw posed, he was posing without the actual first bronze cast? This is certainly possible. However, the first bronze casts appeared in 1904, and the G. B. Shaw picture was from 1906, the night of an unveiling of one of the bronze casts in London. Moreover, this really doesn't explain all the pictures of people next to the bronze casts in the museums with their hand on their forehead from recent years.

Here we see both significance and proximity, and even circumstantial physical evidence. Although I haven't seen many of these types of effects, it doesn't mean they aren't out there, making it one of the weirder aspects of the Mandela effect, whether you believe it is due to multiple timelines or has a simpler explanation.

Possible Causes of the Mandela Effect

Although there has been quite a bit of research on how we form memories and store them in the brain, we still don't fully understand how memory works. This means that any theory which attempts to explain the Mandela effect must remain only that: a theory. Let's take a look at the prevailing theories.

It turns out that upon examination, although many commentators have done so, I don't think you can make sweeping generalizations about the origins and meaning (if any) of the Mandela effect. The reason I like to divide the examples into categories is that it's possible different categories might lend themselves more easily to a particular theory or explanation.

These explanations start with simple ones related to memories and then go to more speculative explanations, like religious or conspiracy theories, and end with more scientific explanations, culminating with the simulated multiverse idea. In this final explanation, the Mandela effect becomes not an anomaly but a built-in feature of how a digital, simulated multiverse works.

Simple Errors in Memory or Perception

My first reaction to the simplest examples, including wording and spelling related effects, such as in the Berenstain Bears case, was that these are most likely the result of simple errors of memory.

There's a common exercise in which you ask people to read this sentence and tell you what it says (about Paris in the springtime).

I LOVE
PARIS IN THE
THE SPRINGTIME

Initially, people usually don't notice the extra word in the sentence, unless you ask them to point to each word as it's being said.

When we're reading, we often skip words or allow our minds to fill them in. A 2011 study in the *Journal of Experimental Psychology: Human Perception and Performance* showed that words that are skipped are filled in 8% to 30% of the time.²⁷ An important factor in this study was the predictability and the length of the word: Since the repeated word, in this case, is very short and common ("the"), it is often overlooked.

What about the letters inside words? As Arizona State University associate professor Gene Brewer, PhD, explained to *Mental Floss*: "When you recall an event, you use memories around it, taking elements or pieces of other events and fitting them where they make sense."²⁸

In other words, a likely explanation for the misspelling of Berenstain and Jif is because kids may have misspelled it, and even newspaper articles and school publications may have misspelled it. Similarly, this might explain small changes in logos and other effects when not much significance is attached to them. Nevertheless, the fact that a large number of people who have the same memory is what makes it a valid and interesting effect. Moreover, this simple explanation simply ignores the data of those who remember an effect with high significance and/or proximity.

Intentional False Memories

This is where we start to get more speculative on the reasons for and causes of the Mandela effect. Psychologists have found that telling people about a false event can cause them to remember it as true. This has happened in court cases and in test experiments. University of Virginia professor of psychology Jim Coan created the "lost in the mall" procedure²⁹ when he was an undergraduate at the University of Washington, Coan described childhood events to his family members, including one about his brother getting lost in the

mall. His brother later took that to be a true event, even though it wasn't. The technique was applied to a larger number of people by his professor, psychologist Elizabeth Loftus, who found up to 25% of the participants remembered something that was false. Since then, this explanation has been used in court to "discredit abuse survivors' testimony by inferring that false memories for childhood abuse can be implanted by psychotherapists."³⁰

Although there is validity to the idea that false memories can be implanted this way (effectively by suggestion by some external, malicious agent), this would mean someone was specifically *trying* to plant these false stories so that a large number of people might remember them as true. In the case of Mandela's death (and many other effects), this doesn't sound like a reasonable explanation. Unless there were multiple news outlets, including newspapers, TV, and radio, that were all in on it, either reporting his death in the 1980s or remembering it later), this explanation just doesn't hold up in my opinion. In fact, this explanation (that these are false memories intentionally planted) starts to sound like a conspiracy theory.

Are there other ways that false memories can come together? The Deese-Roediger-McDermott procedure allows for closely related words (like *bed* and *pillow*) to suggest other words (like *sleep*) that weren't in the list, but which participants remember as having been on the list.³¹ This could be due to a failure of memory and how it works through association. But again, whereas this explanation seems to hold true for simple errors, it is unlikely that it could be responsible for major events, in which people remember Bill Clinton and other presidents honoring Billy Graham at his funeral, and some remember discussing it with relatives well before his actual death.

A more science fiction explanation would be that some super-psychiatrist outside of our normal purview was implanting false memories into the brains of a subset of the population as part of some experiment. Now we are back in the realm of Philip K. Dick's novels, in which false memories feature prominently. These ideas

were carried forward in movie adaptations of Dick's work like *Blade Runner*, in which the android Rachel is given false memories of a childhood she never had, and *Total Recall*, in which Arnold Schwarzenegger's character is able to take a vacation by simply implanting memories in his mind. In both cases, the memories were planted by an external agent for a specific purpose.

What purpose would there be for implanting false memories in a large percentage of the population? We can only speculate about both purpose and the method of such a procedure.

