

The philosophy for analyzing doubt and deception goes by many names. It has been called Incongruity Analysis by British and American intelligence analysts. Theorists of humor and comedy refer to Incongruity Theory.

Magicians call it Discrepancy Analysis. Scientists generally speak of Anomalies. In 1880, the great British biologist T. H. Huxley named it The Method of Zadig.

Leading philosophers like Charles Peirce and Susan Haack call it Retroductive or Abductive Inference.

Mathematician Von Neumann & economist Morgenstern published their Theory of Games (including the first theory of bluffing) in 1944. Mathematician Claude Shannon presented his brilliant Mathematical Theory of Communication in 1948, following it the next year with the first Theory of Cryptology.

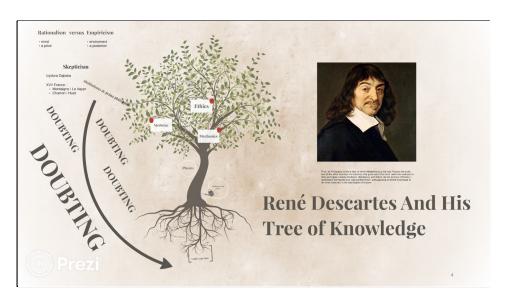
And the successful Scottish physician, Dr. Joe Bell, called it The Method when teaching it to his medical students, including a 19-year-old named Arthur Doyle who adapted it to detective fiction in 1887 and created the world's most famous detective, Sherlock Holmes.



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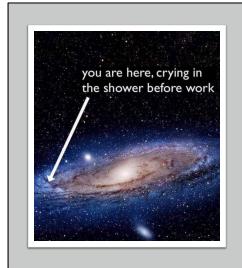
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Thus, all Philosophy is like a tree, of which Metaphysics is the root, Physics the trunk, and all the other sciences the branches that grow out of this trunk, which are reduced to three principals, namely, Medicine, Mechanics, and Ethics. Descartes said, By the science of Morals, I understand the highest and most perfect which, presupposing an entire knowledge of the other sciences, is the last degree of wisdom.

It isn't just important to consider the tree, we must also investigate, where it is planted, the soil type, how it is nourished and so on. Understanding the validity of the information we consume is more complex than we usually consider.



The First Meditation

Descartes found he could doubt that things in front of him are really there, and even that his body exists, since he could be dreaming or hallucinating.

However, he couldn't doubt that he has a mind (when he considered it attentively) because he was doubting other things and doubting can only be done by a mind.

It is not possible for us to doubt that, while we are doubting, we exist; and . . . this is the first thing which we know by philosophizing in the correct order.

Descartes's first principle is that his own mind exists.

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In the *First Meditation*, Descartes lays out several arguments for doubting all of his previously held beliefs. He is a cautious, but objective observer. He first observes that the senses sometimes deceive, for example, objects at a distance appear to be quite small, and he argues that it isn't prudent to trust something that has deceived us even once.

He goes on to argue that although this may apply to sensations derived under certain circumstances, doesn't it seem certain that "I am here, sitting by the fire, wearing a winter dressing gown, holding this piece of paper in my hands, and so on". Descartes' point is that even though the senses deceive us some of the time, what basis for doubt exists for the immediate belief that, for example, you are sitting here listening to this presentation?

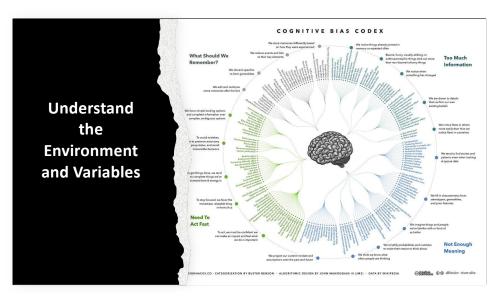
But maybe the belief of being here or of sitting by the fire is not based on true sensations at all but on the false sensations found in dreams. If these sensations are just dreams, then it really isn't the case that you are listening to me but in fact you are in bed asleep dreaming of discussing doubt and epistemology with Descartes?

Since there is no principled way of distinguishing waking life from dreams, any belief

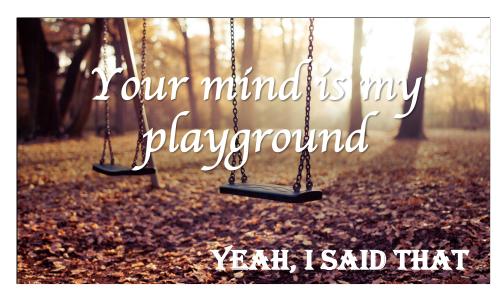
based on sensation has been shown to be doubtful. This includes not only the mundane beliefs about being here or sitting by the fire but even the beliefs of experimental science are doubtful, because the observations upon which they are based may not be true but mere dream images.

Therefore, all beliefs based on sensation have been called into doubt, because it might all be a dream.

This necessitates mentioning the dichotamy between emotional and logical thinking. The emotional process is devoid of logical reasoning, it too relies on senses which can be deceived and therefore should not be trusted.



Numerous cognitive biases exist, too much information (information overload), lost or incomplete context, decision timeliness, or contextual messaging. Receiving information and decision making is influenced my many more factors than we are aware, and we should consider these factors carefully.



My playground, my rules.

Daniel & Herbig's A-type versus M-type Deceptions



- "A-type", which is "ambiguity-increasing"
- "M-type", which is entirely "misleading"

- 1) "A-type", which is "ambiguity-increasing". This, the simpler of their two types, merely confuses the target, making it unsure of what to believe. What A-type deceptions seek to insure is that the level of ambiguity always remains high enough to protect the secret of the actual operation."
- 2) "M-type", which is entirely "misleading". This, the more complicated type, reduces ambiguity by building up the attractiveness of one wrong alternative. It causes the target to concentrate on a single contingency, "thereby maximizing the deceiver's chances for prevailing in all others."

More ambiguity increases uncertainty which is associated with doubt. Misleading increases confidence in the deception story and removes doubt.

In short, doubt and the absence of doubt are both to be considered equally, it is Schrödinger's interpretation and application of Descartes Meditations.

So, the question is, after you have been fooled, assuming you can be fooled, and have created doubt, can you correct it?

Perception & Bias

All the mistakes made in the sciences happen, in my view, simply because at the beginning we make judgements too hastily, and accept as our first principles matters which are obscure and of which we do not have a clear and distinct notion.

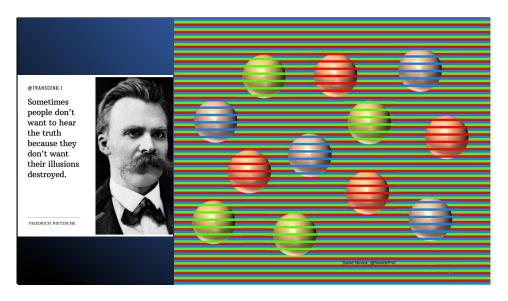
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-Descartes



Initial perceptions can obscure our mental vision of innate principles.

Take a moment to look at this piece of abstract expressionism

If I said that all the green lines are straight, would you doubt me? Is it reasonable to doubt me? When would you have gathered enough evidence to investigate further if I did not mention it? If you had to make a quick decision, does this impair your ability to do so?



Is the mind able to not think of something? Can you think of the absence of something? When I say don't think of an elephant, what is the first thing you think of? An elephant.

Consider this illustration. What are the three colors of balls you see?

Can you really bring yourself to the point where you believe that each ball is the same color or is the visual deception too overpowering?

Even as you struggle to focus on the balls to verify that they are all the same color, your senses are fighting with you. Your senses tell you that you are wrong.

This is a problem when relying on our senses to determine the truth and it is why Descartes warned about it.

Here is the magic, while you are focused on making yourself see the true color of the balls, you are distracted from the true objective of the deception.



Deception Leverages Misperception

Deception is explained by and large in terms of manipulating the behavior of another to the benefit of oneself without the permission of the other.

The intent of deception is "...to get the adversary to act confidently and predictably".

"Reverse Deception: Organized Cyber Threat Counter-Exploitation" (Bodmer, Kilger, Carpenter and Jones, 2012)

Something most people do not understand is the message behind the message behind the message. That is the true driving force. To achieve that goal, there needs to be consistency. The bottom line is the adversary wants to condition you to act in a predictable manner every time you receive stimulus.

Adversaries look to limit variables and replace them with constants.

To achieve a deception victory, the deception story must pass the scrutiny of people who are sometimes unknown to the deceiver. This is important because an individual of a higher training level and good situational awareness will act differently than an individual with less training and who looks at the deception through a completely different lens. Most deceivers choose to target the majority of defenders cognitive ability, strive to make yourself better and use abductive reasoning to out a deceiver. More on that in a bit.

The most efficient and effective manner to win any argument is to control both sides of the narrative.

The best approach is to ensure there are only two arguments, and always force the target to use multiple senses to improve confirmation bias.

Reflexive
Control &
Perceived Bias

"Reverse Deception: Organized Cyber Threat Counter-Exploitation" (Bodmer, Kilger, Carpenter and Jone's, 2012)

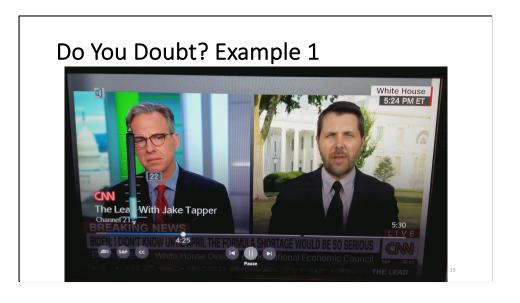
Have you ever considered an argument with just two sides, you are either for or against.

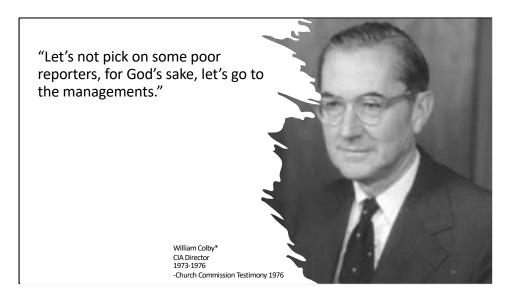
Have you considered an antagonist who changes definitions, especially in a "crisis", either true or manufactured? The one who adjusts definitions is controlling the input.

Are You Asking The Right Question? "I pay attention to lotteries, as they are spreading themselves all over our land, in contempt of State and United States laws. They each claim to be legal, fair, and run by respectable men. The whole thing is a lie. They are odious gambling schemes, designed to enrich a few at the expense of the many who. are deluded into buying tickets. They are corrupters of youth; they beggar wives and children; they breed the spirit of gambling, and ruin and destruction follow in their wake. They are rightfully regarded as public foes."

Loewy, B., 1924. Frauds exposed; or, How the people are deceived and robbed, and youth corrupted

The question should be obvious to you by now. The question is not how much can you win or how do I play the lottery, it should be who makes money off this "business" and who is hurt the most by integrating this into the moral fiber of a family.





Leadership!

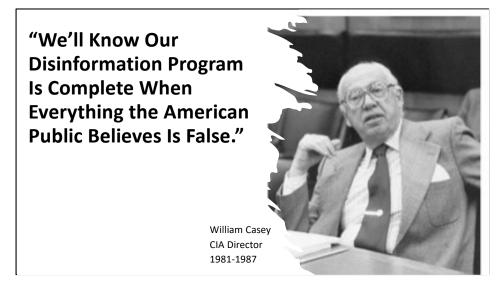
The press has been manipulated by governments over the years, one recent example is Operation Mockingbird which was run by the CIA and included hundreds of news journalists and news stations who broadcast the propaganda messages directed against the soviet union during the cold war.

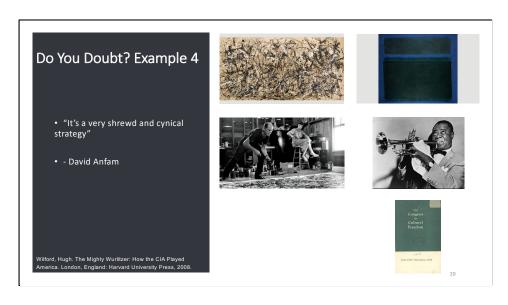
Among the executives who lent their cooperation to the Agency were [the heads of CBS, Time, the New York Times, the Louisville Courier-Journal, and Copley News Service. Other organizations that cooperated with the CIA include [ABC, NBC, AP, UPI, Reuters], Hearst Newspapers, Scripps-Howard, Newsweek magazine, the Mutual Broadcasting System, the Miami Herald and the old Saturday Evening Post and New York Herald-Tribune.

Do You Doubt? Example 2 **■ Hype**Art Italian Artist Salvatore Garau Has Just Sold an Invisible Sculpture for ♦ 514,735 Hypes \$18,000 USD 210 Comments Made from "air and spirit." Italian artist Salvatore Garau has just sold an invisible sculpture for \$18,000 USD. The lo Sono (I am) sculpture, as the artist explains, exists but just not in material form, and The 67-year-old went on to elaborate that, "the vacuum is nothing more than a space full of energy, and even if we empty it and there is nothing left, according to the Heisenberg uncertainty principle, that 'nothing' has a weight. Therefore, it has energy that is condensed and transformed into particles, that is, into us." Much like how we The "sculpture" is intended to be displayed in a 5×5-foot square and must be displayed in a private space free from obstructions where lighting and climate control are not required. Reiterating that even if you can't see it, it does exist, Garau included a certificate of authentication to the purchaser.



Since control of the media in the States has diminished from over 50 sources in the 1980's to only 5 in 2018, things might appear similar.

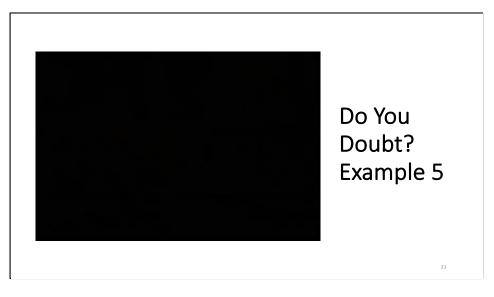




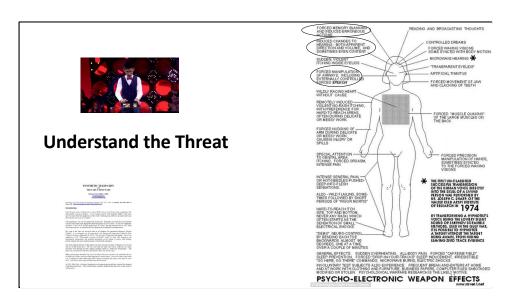
In 1950, the <u>Central Intelligence Agency</u> (CIA) surreptitiously created the <u>Congress for Cultural Freedom</u> (CCF) to counter the <u>Cominform</u>'s "peace offensive." At its peak, the Congress had "offices in thirty-five countries, employed dozens of personnel, published over twenty prestige magazines, held <u>art exhibitions</u>, owned a news and features service, organized high-profile international conferences, and rewarded musicians and artists with prizes and public performances. "The point of these endeavors was to "showcase" U.S. and European high culture, including not just musical works but <u>paintings</u>, <u>ballets</u>, and other artistic avenues, for the benefit of <u>nonaligned</u> foreign intellectuals.

Previously, artists refined their trade then became well known prominent figures in the art world. Something was wrong, this was backwards. Abstract expressionism was an artificially created movement that featured the works of Jackson Pollack who was bankrolled by the CIA through cut-out organizations. Mr Pollack would drip paint on drop cloths, he became arguably the best-known painter of the movement.

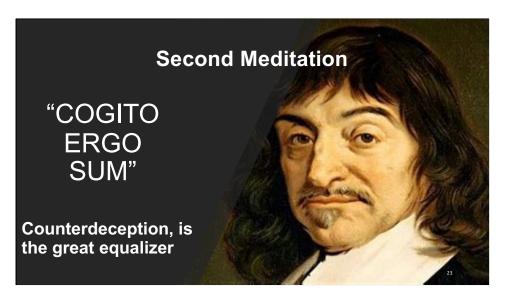
Do you remember the previous slide I showed you with the piece of abstract expressionism, do you doubt the innocence of this type of art? Will you ever look at Abstract Expressionist work in the same way again?



Do societies instill too much trust in perceived authority figures? Does someone actually need to be a subject matter expert for people to listen?

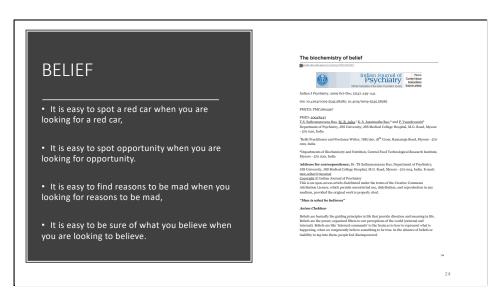


Asymmetric Dominance



Multiple and frequent deceptions can be overwhelming and confusing, being able to work through these quandaries with clarity is an imperative.

Do not let doubt stagnate you, embracing doubt from a logical perspective empowers you to engage and overcome an adversary.



Beliefs are basically the guiding principles in life that provide direction and meaning in life. Beliefs are the preset, organized filters to our perceptions of the world (external and internal). Beliefs are like 'Internal commands' to the brain as to how to represent what is happening, when we congruently believe something to be true. In the absence of beliefs or inability to tap into them, people feel disempowered, this leads to doubt – a stagnation of action.

Beliefs are a choice. We have the power to choose our beliefs. Our beliefs become our reality.

Beliefs are not just cold mental premises, but are 'hot stuff' intertwined with emotions (conscious or unconscious). Perhaps, that is why we feel threatened or react with sometimes

uncalled for aggression, when we believe our beliefs are being challenged! Research findings

have repeatedly pointed out that the emotional brain is no longer confined to the classical

locales of the hippocampus, amygdala and hypothalamus.

The sensory inputs we receive from the environment undergo a filtering process as they travel across one or more synapses,

ultimately reaching the area of higher processing, like the frontal lobes. There, the sensory

information enters our conscious awareness. What portion of this sensory information enters

is determined by our beliefs. Fortunately for us, receptors on the cell membranes are flexible,

which can alter in sensitivity and conformation. In other words, even when we feel stuck

'emotionally', there is always a biochemical potential for change and possible growth. When we choose to change our thoughts (bursts of neurochemicals!), we become open and

receptive to other pieces of sensory information hitherto blocked by our beliefs! When we

change our thinking, we change our beliefs. When we change our beliefs, we change our

behavior.

There is a beautiful saying 'Nobody grows old. When people stop growing, they become old'. If you believe you are fragile, the

biochemistry of your body unquestionably obeys and manifests it. If you believe you are

tough (irrespective of your weight and bone density!), your body undeniably mirrors it When

you believe you are depressed (more precisely, when you become consciously aware of your

'Being depressed'), you stamp the raw data received through your sense organs, with a

judgment – that is your personal view – and physically become the 'interpretation' as you

internalize it. A classic example is 'Psychosocial dwarfism', wherein children who feel and

believe that they are unloved, translate the perceived lack of love into depleted levels of

growth hormone, in contrast to the strongly held view that growth hormone is released

according to a preprogrammed schedule coded into the individual's genes!



Bruce Lipton shed light on the mechanism underlying healing at the cellular level. He emphasizes that 'love' is the most healing emotion and 'placebo' effect accounts for a substantial percentage of *any* drug's action, underscoring the significance of beliefs in health and sickness. According to him, as adults, we still believe in and act our lives out based on information we absorbed as children (pathetic indeed!). The good news is, we can do something about the 'tape' our subconscious mind is playing (ol' silly beliefs) and change them NOW.

Just as amazingly life-affirming placebos are, the reverse, "Nocebo' has been observed to be playing its part too. It is associated with negative, life-threatening or disempowering beliefs.

Arthur Barsky, a psychiatrist states that it is the patient's expectations – beliefs whether a drug or procedure works or will have side effects – that plays a crucial role in the outcome.

So, how do we do that?

The Best Defense is a Good Offense

- 1. Acknowledge your doubt
- 2. Question your doubt
- 3. Recognize and challenge common cognitive distortions
- 4. Distinguish between reasonable and unreasonable doubts
- 5. Avoid seeking reassurance
- 6. Learn to tolerate uncertainty
- 7. Avoid perfectionism
- 8. Give yourself credit for things that you do well
- 9. Change the way you look at failure

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- 1. You will never be able to overcome something if you don't first recognize that it exists and is affecting your decisions. Doubt arises for good reasons. It is not your enemy or a sign of inferiority.
- **2.** What do you doubt? Where do those concerns come from? Asking questions is an important aspect to understanding your actions, so you should never be afraid to ask them, even of yourself. Focusing on what holds you back can help you see which doubts are important. You may find that, after poking through them a bit, your concerns aren't that serious.
- **3.** No one always sees the world clearly all the time. Sometimes we let our emotions cloud judgment and convince us that certain things are true when they aren't. Ask yourself if you are doing one of the following.
- **4.** In questioning your doubts, you may find some of them are unreasonable. Reasonable doubts are based on the probability that you are trying to do something beyond your capabilities.
- **5.** When you regularly ask others to affirm your ideas, you send the implicit message that you don't trust yourself.
- **6.** Doubt sometimes arises because we cannot be completely sure of what the future will hold. Since no one can see the future, there will always be some uncertainty about how things will go. Some people allow their inability to tolerate that

uncertainty paralyze them and prevent them from taking positive actions in their life.

7. Get it?

- **8.** Remember that you have accomplished things before. Look for experiences in your past where you did accomplish a goal, no matter how small. Use that experience to give yourself confidence that by accomplishing that, you can do even more. Some of these accomplishments may even have put you in a position to overcome your current fears
- **9.** This can help you avoid doubting your abilities because you might fail. You still might, but that doesn't have to be a bad thing. Nothing succeeds all the time. Instead of seeing failure as a setback, look at it as a lesson for the future. Consider this a learning experience, feedback that tells you the areas in which you need to improve. Don't be afraid to try again, this time focusing more on those areas for improvement.

Own Empathy / Control Perception



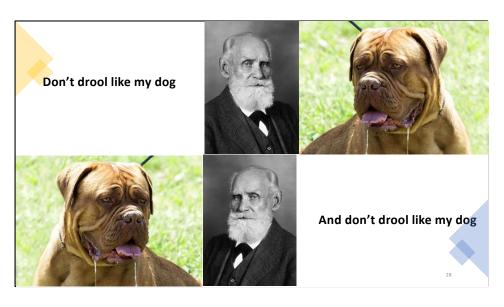


- Think of your adversary
- Do they mirror you in their analysis?
- Do not act with predictability
- Do not say how do I defend, rather, "How can I exploit"

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Does your adversary quote Clausewitz and implement Sun Tzu, or does he quote Sun Tzu and implement Carl Von Clausewitz? Situational awareness is the Golden Rule for deception.

Remember to always avoid patterns and bring that mentality forward into your planning.



Regulations, operator manuals and the like are in the hands of your adversaries. They also reinforce conditioned reflexes that are familiar and comfortable to your adversaries planning.



Always make sure that your technical devices do not deceive you.

William B. Cannon, MD The Way of an Investigator (1945), pg 126

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Each artificial sensor is designed to detect some thing that our natural senses cannot, and translate it into an image or sound or feel that we can sense.

Our eyes cannot see into the ultra-violet or infra-red spectrum of color; but a camera with UV or IR-sensitive film senses these portions of the electromagnetic spectrum, converting them into colors the human eye can see.

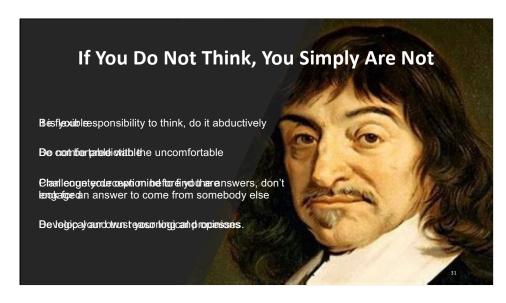
Our eyes cannot see the tiny microbe or the distant galaxy; the microscope and telescope do, translating them into magnified images we can see.

The human ear cannot pick up sounds beyond certain high and low frequencies; microphones (and dogs) can, changing them electronically into visible or audible read-outs.

Our taste buds detect acidity, but chemical litmus paper measures it roughly and electrical pH indicators do so precisely.



should you prefer, its parallel but false reality. KnowledgeBridge International



Barton Whaley has often been called the father of modern deception studies.

So extensive is his influence over deception and counter deception analysis that the Deception Research Center at CIA headquarters bears his name. Perhaps the most unexpected data source Whaley drew upon was the work of stage magicians.

He studied the cognitive biases being exploited by magicians and their frequency across many tricks. The "second rule of every deception's weakness," credited jointly to Whaley and Jones, is this: "Creating a deception simultaneously creates all the clues (incongruities) needed for its detection."

Whaley's own corollary to that rule is that "every deception creates at least two incongruities—one about the thing being hidden (dissimulated), the other about the thing being shown (simulated) in its place."

A Parting thought, The Cuckoo Clock

"In Italy, for 30 years under the Borgias, they had warfare, terror, murder and bloodshed, but they produced Michelangelo, Leonardo da Vinci and the Renaissance. In Switzerland, they had brotherly love, they had five hundred years of democracy and peace — and what did that produce? The cuckoo clock."



Orson Wells as Harry Lime in "The Third Man

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The bottom line is to be comfortable in the Chaos, do not be intimidated. Be confident in your clarity and also in your doubt.

Embrace the contested information environment, do not fear it, both trails of evidence exist there. The goal in deception is to manipulate these trails of evidence. When you are comfortable in this environment, your counterdeception program will flourish.

With a deception, there are additional forensic artifacts that don't belong and additional pieces of evidence that you would expect to find but are absent.

Questioning doubt will illuminate the dissimulated and the simulated and the forensic abductive reasoning process is the key to solving that puzzle.

